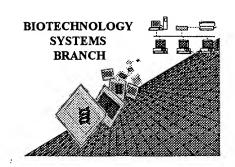
# RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following CRF diskette:

Application Serial Number:

09/198,723

Art Unit / Team No.:

11-19/19

Date Processed by STIC:

THE ATTACHED PRINTOUT EXPLAINS THE ERRORS DETECTED.

PLEASE BE SURE TO FORWARD THIS INFORMATION TO THE APPLICANTS BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANTS ALONG WITH A NOTICE TO COMPLY or,
- 2) CALLING APPLICANTS AND FAXING THEM A COPY OF THE PRINTOUT WITH A NOTICE TO COMPLY

THIS WILL INSURE THAT THE NEXT SUBMISSION RECEIVED FROM THEM WILL BE ERROR FREE.

IF YOU HAVE ANY FURTHER QUESTIONS, PLEASE CALL:

ARTI SHAH 703-308-4212

PAGE: 1

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:06:27

INPUT SET: S30248.raw

This Raw Listing contains the General Information Section and those Sequences containing ERRORS.

	1			SEQUENCE LISTING	Corrected Diskette Needed
	2				Correct Oes No.
	3	(1) Genera	al Information:		Com.
	4				Usker Ply
	5	(i) APPI	LICANT: Malcolm,		"O Noon
	6		•	Shahriar S.	a depth
	7		Weber, P		•
	8		Yao, Nan	hua	
	9				
	10			Covalent Complexes of	Hepatitis C Virus
	11		NS3 Protease and	NS4A Cofactor Peptide	
>	$0 \begin{vmatrix} 12 \\ 13 \end{vmatrix}$	(iii) NUMI	BER OF SEQUENCES	:(123) // (	
	14	( ,		123	
	15	(iv) CORE	RESPONDENCE ADDR	ESS:	
	16	` (A)	ADDRESSEE: Sch	ering-Plough Corp.	
	17	(B)	STREET: 2000 G	alloping Hill Road	
	18		CITY: Kenilwor		
	19	(D)	STATE: New Jer	sey	
	20	(E)	COUNTRY: USA	-	
	21	(F)	ZIP: 07030		
	22				
	23		PUTER READABLE F		
	24		MEDIUM TYPE: F		
	25		COMPUTER: Powe		
	26		OPERATING SYST		
	27	(D)	SOFTWARE: Micr	osoft Word 6.0.1	
	28				
	Ak 29	' '	RENT APPLICATION		
>	UF-30	, ,	APPLICATION NU	MBER: US	
	31	, ,	FILING DATE:		
	32	(C)	CLASSIFICATION	:	
	33	terit til samme		5./1.576.1	
	34		DRNEY/AGENT INFO		
	35		NAME: McLaughl		
	36 37		REGISTRATION N		
	38	(0)	REFERENCE/DOCK	ET NUMBER: JB0800P2	·
	39	(रंक) विकास	COMMINTOR TON T	NEODMARTON.	
	40		ECOMMUNICATION I TELEPHONE: (90		
	41		TELEFAX: (908)		
	42	( 0 )	**************************************	270 3300	
	43				
	44				
	45				

(2) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4 amino acids
- (B) TYPE: amino acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: peptide

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:22:

Pro Ala Gly Gly

2) INFORMATION FOR SEQ ID NO:22:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 1964 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: CDS
- (B) LOCATION: 1..1964

(2) INFORMATION FOR SEQ ID NO:23:

Remove all

Remove all

Joseph markers

Stat oppearing in

Sequence I.

(Seg. 22 is' already mentioned

(2) INFORMATION FOR SEQ ID NO:24:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 54 amino acids

(B) TYPE: amino acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE CONA delete-smoothed regions for an onend suit seguine

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:24:

Ser Thr Trp Val Leu Val Gly Gly Val Leu Ala Ala Leu Ala Ala Tyr 1 5 10 15



#### (2) INFORMATION FOR SEQ ID NO:60:

(i) SEQUENCE CHARACTERISTICS: 646

(A) LENGTH: 668 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

#### (ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:60:

Met His Met His His His His His His Leu Val Pro Arg Gly Ser Ala 10 Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly Cys Lys 20 Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val 35

Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn 50 55 60

Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala 65 70 75 80

Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp 85 90 95

Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys
100 105 110

Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val 115 120 125

Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro 130 135 140

Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys 145 150 155 160

Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg 165 170 175

Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr 180 185 190

Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val 195 200 205

Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly 210 215 220

Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 225 230 235 240

Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr

245 250 255

Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg 260 265 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 280 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Cys Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 310 315 320 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 330 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 350 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 360 365 Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly 395 Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro Thr Ile Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 420 425 430 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 440 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr 460 Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr 465 470 475 480 Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg 485 490 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala 505 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu 515 520 525 Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu 530 535 Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His

sle rest pogr

545

Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val

555

Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser 585

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His

Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val

Thr Leu Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met Ser Ala Adute Stop colone 35 630

Glu Phe Glu Leu Arg Arg Gln Ala Cys Asp Leu Glu Val Val Thr 645

Gly Arg Thr Arg Ala Pro Rro Pro Pro Pro Leu Arg -665 iO

> Ang group I for more americandi following a stop coder (\*) needs its our SEQ FD NO. Please adjuit Ile ( [ii] NUMBER OF SERVENCES,

> > response, too (R.1)

09/198,723 Gids 9646 show

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 668 amino acids

(B) TYPE: amino acid
(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:63:

Met His Met His His His His His Leu Val Pro Arg Gly Ser Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Lys Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val 125 Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys 145 160 Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg 165 Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr 185 Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val 195 200 205 Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly 210 Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 225 240 230 235 Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr 245 250

- --

Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg 265 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 320 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 330 325 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 345 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His 380 Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro 415 405 Thr Ile Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 420 425 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr 460 455 Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr 465 480 Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg 485 490 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala 505 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu 515 Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu 530 535 Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His 545 550 555 560

Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His 595

Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val

Thr Leu Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met Ser Ala 635 of delete

Asp Leu Glu Val Val Thr

#### (2) INFORMATION FOR SEQ ID NO:66:

(i) SEQUENCE CHARACTERISTICS: (6)

(A) LENGTH: 668 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

#### (ii) MOLECULE TYPE: protein

#### (xi) SEQUENCE DESCRIPTION: SEQ ID NO:66:

Met His Met His His His His His Leu Val Pro Arg Gly Ser Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn 50 Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys 100 Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val 115 Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg 165 175 Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr 180 185 190 Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val 195 200 Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly 210 215 220 Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 225 240 Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr 245 250 255

Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg 260 265 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 280 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Cys 295 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 305 320 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 325 330 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 345 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 360 Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His 370 Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro 410 Thr Ile Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 420 425 430 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 440 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr 455 Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr 465 480 Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg 485 490 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala 505 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu 515 520 Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu 530 535 540 Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His

560

Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val 565 570 575

Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser 580 585 590

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His 595 600 605

Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val 610 620

Thr Leu Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met Ser Ala 625 630 635 640

Asp Leu Glu Val Val Thr

4

#### (2) INFORMATION FOR SEQ ID NO:69:

O9/198,723
CORMATION FOR SEQ ID NO:69:

(i) SEQUENCE CHARACTERISTICS: 646 show

(A) LENGTH: 668 amino acids

- (B) TYPE: amino acid
- (D) TOPOLOGY: linear

#### (ii) MOLECULE TYPE: protein

#### (xi) SEQUENCE DESCRIPTION: SEQ ID NO:69:

Met His Met His His His His His Leu Val Pro Arg Gly Ser Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn 50 Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys 100 105 110 Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val 115 Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg 165 175 Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr 180 185 190 Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val 200 Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly 210 215 220 Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 225 240

Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr

245 250 255

Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg 265 270 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 280 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Cys 295 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 325 330 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 345 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 360 365 Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His 370 Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly 395 Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro 410 Thr Ser Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 420 425 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 440 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr 465 470 480 Gly Arg Gly Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg 485 490 Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala 505 Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu 515 520 525 Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu 530 535 Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His

Met	Ser	Lys	Ala 260	His	Gly	Ile	Asp	Pro 265	Asn	Ile	Arg	Thr	Gly 270	Val	Arg
Thr	Ile	Thr 275	Thr	Gly	Ala	Pro	Val 280	Thr	Tyr	Ser	Thr	Tyr 285	Gly	Lys	Phe
Leu	Ala 290	Asp	Gly	Gly	Cys	Ser 295	Gly	Gly	Ala	Tyr	Asp 300	Ile	Ile	Ile	Cys
Asp 305	Glu	Cys	His	Ser	Thr 310	Asp	Ser	Thr	Thr	Ile 315	Leu	Gly	Ile	Gly	Thr 320
Val	Leu	Asp	Gln	Ala 325	Glu	Thr	Ala	Gly	Ala 330	Arg	Leu	Val	Val	Leu 335	Ala
Thr	Ala	Thr	Pro 340	Pro	Gly	Ser	Val	Thr 345	Val	Pro	His	Pro	Asn 350	Ile	Glu
Glu	Val	Ala 355	Leu	Ser	Asn	Thr	Gly 360	Glu	Ile	Pro	Phe	Туг 365	Gly	Lys	Ala
Ile	Pro 370	Ile	Glu	Ala	Ile	Arg 375	Gly	Gly	Arg	His	Leu 380	Ile	Phe	Cys	His
Ser 385	Lys	Lys	Lys	Cys	Asp 390	Glu	Leu	Ala	Ala	Lys 395	Leu	Ser	Gly	Leu	Gly 400
Ile	Asn	Ala	Val	Ala 405	Tyr	Tyr	Arg	Gly	Leu 410	Asp	Val	Ser	Val	Ile 415	Pro
Thr	Ile	Gly	Asp 420	Val	Val	Val	Val	Ala 425	Thr	Asp	Ala	Leu	Met 430	Thr	Gly
Tyr	Thr	Gly 435	Asp	Phe	Asp	Ser	Val 440	Ile	Asp	Cys	Asn	Thr 445	Cys	Val	Thr
Gln	Thr 450	Val	Asp	Phe	Ser	Leu 455	Asp	Pro	Thr	Phe	Thr 460	Ile	Glu	Thr	Thr
Thr 465	Val	Pro	Gln	Asp	Ala 470	Val	Ser	Arg	Ser	Gln 475	Arg	Arg	Gly	Arg	Thr 480
Gly	Arg	Gly	Arg	Arg 485	Gly	Ile	Tyr	Arg	Phe 490	Val	Thr	Pro	Gly	Glu 495	Arg
Pro	Ser	Gly	Met 500	Phe	Asp	Ser	Ser	Val 505	Leu	Cys	Glu	Cys	Tyr 510	Asp	Ala
Gly	Cys	Ala 515	Trp	Tyr	Glu	Leu	Thr 520	Pro	Ala	Glu	Thr	Ser 525	Val	Arg	Leu
Arg	Ala 530	Tyr	Leu	Asn	Thr	Pro 535	Gly	Leu	Pro	Val	Cys 540	Gln	Asp	His	Leu
Glu	Phe	Trp	Glu	Ser	Val	Phe	Thr	Gly	Leu	Thr	His	Ile	Asp	Ala	His

555

560

Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val 565

Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser 585

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His 595

Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val 610

Thr Leu Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met Ser Ala 630

Asp Leu Glu Val Val Thr Glu Phe Glu Leu Arg Arg Gln Ala Cys 645

Gly Arg Thr Arg Ala Pro Pro Pro Pro Pro Lèu Arg 665 10

(2) INFORMATION FOR SEQ LO NO:70:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 56 base pairs

- (B) TYPE: nxcleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLØGY: linear

(ii) MOLECULE TYPE: cDNA

#### (2) INFORMATION FOR SEQ ID NO:72:

09/198,723 :s: ) 646 stern (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: (669 amino acids

(B) TYPE: amino acid

(D) TOPOLOGY: linear

#### (ii) MOLECULE TYPE: protein

#### (xi) SEQUENCE DESCRIPTION: SEQ ID NO:72:

Met His Met His His His His His Leu Val Pro Arg Gly Ser Ala Pro Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu Leu Gly Cys Ile 25 Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn 50 Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala 70 Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys 110 Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val 115 125 Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro 135 140 Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys 150 Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg 165 Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr 180 185 190 Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val 200 Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly 210 215 220 Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 225 230 235 240 Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr

560

Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val 565 570 575

Ala Tyr Gln Ala Thr Val Cys Ala Arg Ala Gln Ala Pro Pro Pro Ser 580 585 590

Trp Asp Gln Met Trp Lys Cys Leu Ile Arg Leu Lys Pro Thr Leu His 595 600 605

Gly Pro Thr Pro Leu Leu Tyr Arg Leu Gly Ala Val Gln Asn Glu Val 610 615 620

Thr Leu Thr His Pro Ile Thr Lys Tyr Ile Met Ala Cys Met Ser Ala 625 630 / 635 640

Asp Leu Glu Val Val Thr

1

PAGE: 12

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98

TIME: 16:06:35

INPUT SET: S30248.raw 4176 CTG CTC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT TCG GGT GGT Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly CCA CTG CTC TGC CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC Pro Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu TCC ATG GAA ACT ACT ATG CGG TCT TGA
Ser Met Glu Thr Thr Met Arg Ser \* (2) INFORMATION FOR SEQ ID NO:93: (i) SEQUENCE CHARACTERISTICS: (delete all format marken) (e.g., Lard page break coder) (A) LENGTH: 651 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA (genomic) (ix) FEATURE: (A) NAME/KEY: CDS (B) LOCATION: 1..651 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:93: ATG GGC AGC AGC CAT CAT CAT CAT CAC AGC AGC GGC CTG GTG CCG Met Gly Ser Ser His His His His His Ser Ser Gly Leu Val Pro CGC GGC AGC CAT ATG GGT TCT GTT GTT ATT GTT GGT AGA ATT ATT TTA Arg Gly Ser His Met Gly Ser Val Val Ile Val Gly Arg Ile Ile Leu TCT GGT AGT GGT AGT ATC ACG GCC TAC TCC CAA CAG ACG CGG GGC CTA Ser Gly Ser Gly Ser Ile Thr Ala Tyr Ser Gln Gln Thr Arg Gly Leu 

CTT GGT TGC AAG ATC ACT AGC CTT ACA GGC CGG GAC AAG AAC CAG GTC 192

Leu Gly Cys Lys Ile Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val

GAG GGA GAG GTT CAG GTG GTT TCC ACC GCA ACA CAA TCC TTC CTG GCG

Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala

DATE: 12/09/98 TIME: 16:06:36

													IN	<b>PUT</b>	SET: S30248	B.raw
	TGC Cys															288
	ACC Thr															336
235 236	GAC		100			_		105					110			384
	. Asp															304
241 TTG	ACA Thr 130															432
245 CAT 246 His 247 145	GCT Ala															480
	CTC Leu															528
253 CCA	CTG Leu															576
257 GTA 258 Val	TGC Cys	Thr	Arg	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	624
263	ATG Met 210	GAA Glu	ACT Thr	ACT Thr	ATG Met	CGG Arg 215	TCT Ser	TGA */	(2)	INF	-R^ DRMA'	rion	JX FOR	SEQ	ID NO:94	65: :
264 265 266 267 268 269 270	(i	( ) ( ) ( )	A) L1 B) T'( C) S'	CE CH ENGTH YPE: TRANI OPOLO	i: 65	ol ba Leic Ess:	ase p acio sino	pairs 1 gle	5							
271 272 273	(ii	) MOI	LECUI	LE TY	PE:	DNA	(ger	nomic	=)							
274 275 276 277 278	(ix		A) N	E: AME/I DCATI			551									
<b>279</b> 280	(xi	) SE(	QUEN	CE DE	escri	PTIC	)N: S	SEQ 1	D NO	94	:					

4281 ATG GGC AGC CAT CAT CAT CAT CAC AGC AGC GGC CTG GTG CCG

														IN	<i>IPUT</i>	SET:	S30248.raw
4282	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly				
4283	1	•			5					10			•		15		
4284																	
4285	CGC	GGC	AGC	CAT	ATG	GGT	TCT	GTT	GTT	ATT	GTT	GGT	AGA	ATT	ATT	TTA	96
4286	Arq	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arq	Ile	Ile	Leu	
4287	-	-		20		_			25			-	•	30			
4288																	
4289	TCT	GGT	AGT	GGT	AGT	ATC	ACG	GCC	TAC	TCC	CAA	CAG	ACG	CGG	GGC	CTA	144
4290					Ser												
4291		-	35	•				40	-				45	,	-		
4292																	
4293	CTT	GGT	TGC	ATC	AAG	ACT	AGC	CTT	ACA	GGC	CGG	GAC	AAG	AAC	CAG	GTC	192
4294					Lys												
4295		50	-		•		55			-		60	•				
4296																	
4297	GAG	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	240
4298					Gln												
4299	65					70					75					80	
4300																	
4301	ACC	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	TAC	CAT	GGT	GCT	GGC	TCA	288
4302					Gly												
4303					85		•			90	- 4				95		
4304																	
4305	AAG	ACC	TTA	GCC	GGC	CCA	AAG	GGG	CCA	ATC	ACC	CAG	ATG	TAC	ACT	AAT	336
4306	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	
4307	-			100	-		-	-	105					110			
4308																	
4309	GTG	GAC	CAG	GAC	CTC	GTC	GGC	TGG	CAG	GCG	CCC	CCC	GGG	GCG	CGT	TCC	384
4310					Leu												
4311		-	115	-			•	120					125		•		
4312																	
4313	TTG	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	432
4314	Leu	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	
4315		130		_		_	135			_		140				_	
4316																	
4317	CAT	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	480
4318	His	Ala	Asp	Val	Ile	Pro	Val	Arg	Arg	Arg	Gly	Asp	Ser	Arg	Gly	Ser	
4319	145					150					155					160	
4320																	
4321	CTG	CTC	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	528
4322	Leu	Leu	Ser	Pro	Arg	Pro	Val	Ser	Tyr	Leu	Lys	Gly	Ser	Ser	Gly	Gly	
4323					165					170					175		
4324																	
4325					CCT												576
4326	Pro	Leu	Leu	Cys	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	
4327				180					185					190			
4328																	
4329	GTA	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	624
4330	Val	Cys	Thr	Arg	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	
4331			195					200					205				
4332																	
4333	TCC	ATG	GAA	ACT	ACT	ATG	CGG	TCT	TGA								651
4334	Ser	Met	Glu	Thr	Thr	Met	Arg	Ser	*								
											•						

PAGE: 15

#### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:06:38

INPUT SET: S30248.raw (2) INFORMATION FOR SEQ ID NO:95: (i) SEQUENCE CHARACTERISTICS: (A) LENGTH: 651 base pairs (B) TYPE: nucleic acid (C) STRANDEDNESS: single (D) TOPOLOGY: linear (ii) MOLECULE TYPE: DNA (genomic) (ix) FEATURE: (A) NAME/KEY: CDS (B) LOCATION: 1..651 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:95: ATG GGC AGC CAT CAT CAT CAT CAC AGC AGC GGC CTG GTG CCG Met Gly Ser Ser His His His His His Ser Ser Gly Leu Val Pro CGC GGC AGC CAT ATG GGT TCT GTT GTT ATT GTT GGT AGA ATT ATT TTA Arg Gly Ser His Met Gly Ser Val Val Ile Val Gly Arg Ile Ile Leu TCT GGT AGT GGT ATC ACG GCC TAC TCC CAA CAG ACG CGG GGC CTA Ser Gly Ser Gly Ser Ile Thr Ala Tyr Ser Gln Gln Thr Arq Gly Leu CTT GGT TGC AAG AAG ACT AGC CTT ACA GGC CGG GAC AAG AAC CAG GTC Leu Gly Cys Lys Lys Thr Ser Leu Thr Gly Arg Asp Lys Asn Gln Val GAG GGA GAG GTT CAG GTG GTT TCC ACC GCA ACA CAA TCC TTC CTG GCG Glu Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala ACC TGC GTC AAC GGC GTG TGT TGG ACC GTT TAC CAT GGT GCT GGC TCA Thr Cys Val Asn Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser AAG ACC TTA GCC GGC CCA AAG GGG CCA ATC ACC CAG ATG TAC ACT AAT Lys Thr Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn GTG GAC CAG GAC CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser TTG ACA CCA TGC ACC TGT GGC AGC TCA GAC CTT TAC TTG GTC ACG AGA Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arq 

														IN	<i>IPUT</i>	SET: S30248.	raw
4388																	
4389				GTC													480
4390		Ala	Asp	Val	Ile		Val	Arg	Arg	Arg	_	Asp	Ser	Arg	Gly		
4391	145					150					155					160	
4392						~~=								maa		aam	500
4393				CCC													528
4394 4395	Leu	Leu	ser	Pro	165	Pro	vaı	ser	туг	170	гÀг	СТА	ser	Ser	175	GIA	
4395					163					1/0	•				1/5		
4397	CCA	СТС	CTC	TGC	ССТ	TCG	aga	CAC	CCT	стс	GGC	ΔПС	ጥጥር	CGG	сст	GCC	576
4398				Cys													
4399				180			1		185		1			190			
4400																	
4401	GTA	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	624
4402	Val	Cys	Thr	Arg	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	
4403			195					200					205				
4404										, ,							
4405				ACT													651
4406	Ser		Glu	Thr	Thr	Met	-	Ser	*(								
4407		210					215		•	(2)	INFO	ORMA'	LION	FOR	SEQ	ID NO:96:	
4408		, , ,	C CT	\! 1173.17	15 AT	7202/	ammn.	T COUT	70.								
4409 441 <b>0</b>		( 1		QUENC A) LE													
4411				3) TS						•							
4412			•	c) si													
4413				) TO					,								
4414			•	, -													
4415		(ii)	MOI	LECUI	E T	YPE:	cDN	A									
4416																	
4417																	
4418																	
4419		(ix)		ATURE													
4420				A) N/													
4421			( 1	3) L	CAT.	LON:	1	550									
4422 4423																	
4423 4424		/vi1	QP(	QUENC	ות שי	rece:	r DTT /	N. (	SEO 1	TD N/	1.06	•					
4425		(11)	, 54	Some	,G D.	abcu.		<i>7</i> 14	JEQ .	LD IN		•					
4426	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG	48
4427				Ser													
4428	1	-			5		٠.			10			-		15		
4429																	
4430				CAT													96
4431	Arg	Gly	Ser	His	Met	Gly	Ser	Val		Ile	Val	Gly	Arg	Ile	Ile	Leu	
4432				20					25					30			
4433																	
4434				GGT													144
4435	ser	GТÀ		Gly	Ser	ITe	Thr		Tyr	ser	GIN	GIn		arg	сту	ьeu	
4436			35					40					45				
4437 4438	CIDA	CCT	ሞረረ	ATC	איייט	λCITI	אממ	Cmm	אמא	acc	ccc	GVG	220	አአጣ	CAC	GTC	192
4438				Ile													174
4440	ьeu	50	Cys	**6	TT6	1111	55	Ten	****	G <sub>T</sub> y	719	60	Lys	H211	U-1.11	, u.	

														IN	PUT	SET: S30248.	raw
4441 4442	CAC	gg N	GAG	CITI TI	CAG	OTC.	CTTT	TOO	N.C.C	aa v	A C A	CAA	TOC	መሞሮ	CTC	aca	240
4443					Gln												240
4444	65	-				70					75					80	
4445																	
4446					GGC												288
4447 4448	Thr	cys	vaı	Asn	Gly 85	vaı	cys	тгр	Thr	90	туr	HIS	GTÀ	АТа	95	ser	
4449					0.5					90		•			75		
4450	AAG	ACC	TTA	GCC	GGC	CCA	AAG	GGG	CCA	ATC	ACC	CAG	ATG	TAC	ACT	AAT	336
4451	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	
4452				100					105					110			
4453 4454	ama	a a a	ava	CAC	CTC	ста	aaa	maa.	ana	aaa	aaa	000	aaa	aaa	O O TO	TCC	384
4454					Leu												304
4456	,	2	115				<b>-</b> 1	120	<b></b>				125		9		
4457																	
4458					ACC												432
4459	Leu		Pro	Cys	Thr	Cys		Ser	Ser	Asp	Leu	-	Leu	Val	Thr	Arg	
4460 4461		130					135					140					
4462	CAT	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	480
4463					Ile												
4464	145					150					155					160	
4465																	
4466 4467					AGG Arg												528
4468	ьeu	rea	261	PIO	165	PIO	vaı	ser	ıyı	170	гуъ	СТУ	ser	нта	175	GIY	
4469																	
4470	CCA	CTG	CTC	TGC	CCT	TCG	GGG	CAC	GCT	GTG	GGC	ATC	TTC	CGG	GCT	GCC	576
4471	Pro	Leu	Leu	_	Pro	Ser	Gly	His		Val	Gly	Ile	Phe	_	Ala	Ala	
4472				180					185					190			
4473 4474	CΠY	TGC	ACC	CGG	GGG	CTT	מרם	AAG	aca	стс	GAC	արա	GTG.	מממ	сπν	GAG	624
4475					Gly												
4476		-	195		-			200			-		205				
4477																	
4478					ACT				TG								650
4479 4480	ser	мет 210	GIU	Thr	Thr	мет	Arg 215	ser	6	(2)	TNE	יגאסר	rton.	FOR	SEO	ID NO:97:	
4481		210					213			(2)	THE	JEMA .	LION	FOR	SEQ	1D NO. 37.	
4482		(i)	) SE(	QUEN	CE CH	IARAC	TER:	ISTIC	cs:								
4483				-	ENGTI			_		3						•	
4484			•	-	YPE:												
4485					rani				gle								
4486 4487			(1	J) T	OPOLO	JGY:	Tine	ear									
4487		(ii	) MOI	LECUI	LE TY	ZPE:	cDN	A									
4489		,	,														
4490																	
4491		(ix	) FE														
4492			-	-	AME/I			C E O									
4493			(1	2) P(	OCAT:	TON:	T 6	220									

PAGE: 18

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

															IN	PUT	SET: S	30248.r	aw
	4494															_			
	4495																		
>	4496		(xi)	SEC	QUEN	E DE	SCR	[PTI	n: s	SEQ :	D N	0:97	:						
	4497		•		<del>-</del>					-									
	4498	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG		48
	4499	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu	Val	Pro		
	4500	1	-			5					10			-		15			
	4501																		
	4502	CGC	GGC	AGC	CAT	ATG	GGT	TCT	GTT	GTT	ATT	GTT	GGT	AGA	ATT	ATT	TTA		96
	4503	Arq	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arq	Ile	Ile	Leu		
	4504	_	-		20		•			25			•	_	30				
	4505																		
	4506	TCT	GGT	AGT	GGT	AGT	ATC	ACG	GCC	TAC	TCC	CAA	CAG	ACG	CGG	GGC	CTA		144
	4507	Ser	Gly	Ser	Gly	Ser	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu		
	4508		•	35	_				40	-				45	_	•			
	4509																		
	4510	CTT	GGT	TGC	AAG	ATC	ACT	AGC	CTT	ACA	GGC	CGG	GAC	AAG	AAC	CAG	GTC		192
	4511	Leu	Gly	Cys	Lys	Ile	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val		
	4512		50	-	_			55			_	_	60	_					
	4513																•		
	4514	GAG	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG		240
	4515	Glu	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala		
	4516	65					70					75					80		
	4517				•														
	4518					GGC													288
	4519	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser		
	4520					85					90	4.5	٠.,			95			
	4521																		
	4522					GGC													336
	4523	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn		
	4524				100					105					110				
	4525																		
	4526					CTC													384
	4527	Val	Asp		Asp	Leu	Val	Gly	_	Gln	Ala	Pro	Pro	Gly	Ala	Arg	Ser		
	4528			115					120					125					
	4529																		
	4530					ACC													432
	4531	Leu		Pro	Cys	Thr	Cys		Ser	Ser	Asp	Leu		Leu	Val	Thr	Arg		
	4532		130					135					140						
	4533																		
	4534					ATT													480
	4535		АТа	Asp	vaı	Ile		vaı	arg	arg	arg	_	Asp	ser	Arg	GTÄ			
	4536	145					150					155					160		
	4537	O EE O	ama	maa	000	100	aam	ama.	maa	ma a	mma		~~~	mam	aam	aam	aam		F 2 0
	4538					AGG													528
	4539	ьeu	ьeu	ser	PIO	Arg	PIO	val	ser	ryr		гÀ2	стλ	ser	ата	_	стА		
	4540					165					170					175			
	4541	ac.	OE C	are a	maa	aam	maa	aaa	02.0	aam	ama.	000	3 m~	mm~	~~~	aam	000		E76
	4542					CCT													576
	4543	PIO	ьeu	ьeu		Pro	ser	GTÅ	uis		vaı	сΤΆ	тте	rne	_	ата	Ата		
	4544				180					185					190				
	4545	CITE 3	maa	N CC	ccc	GGG	CIDIT!	aaa	λ λ.C	aaa	CITIC!	a z a	mmm	OMC.	aaa	CITI N	CAC		624
	4546	GIA	IGC	ACC		GGG	GIT	GCG	AAG	GCG	GIG	GAC	1 1 1 1	GIG	CCC	GIA	GAG		024

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4547	Val	Cvs	Thr	Ara	Gly	Val	Ala	Lvs	Ala	Val	Asp	Phe	Val				
4548			195	5	-3			200					205				
4549																	
4550	TCC	ATG	GAA	ACT	ACT	ATG	CGG	TCT	TG	/ ,							650
4551					Thr												
4552		210					215		Ľ	(2)	INFO	RMAT	NOI	FOR	SEO	ID NO:98:	
4553										(-,							
4554		6i Y	SEC	HENC	CE CH	IARAC	TERT	STIC	!S:								
4555		\-/	_	-	ENGTH					=							
4556					PE:					•							
4557					rani												
4558			•	•	OPOLO				,								
4559			,,	, .			<b>T</b> 1110										
4560		/ii)	MOT	ECI II	E TY	DF.	CDNZ										
4561		( /	MOI	JEC01	11	ED.	CDM	•									
4562																	
4563		/ i == \	. चन	ATURE	7.												
4564		(IX)			AME/F	/DV.	ana										
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4567		/ ×	OF			300D 1	rmmr.	<b></b> .	180 1			_					
4568		(X1)	SE	SOEWC	CE DE	SCKI	LPTIC	JN: :	seč i	LD M	):98	•					
4569	» ma	000		100	0 3 m	C) III	a a m	~ m	<b>73</b> m	a.a	3.00		000	ama	ama.	aaa	4.0
4570					CAT												48
4571		GTÀ	ser	ser	His	HIS	HIS	HIS	HIS		ser	ser	GTA	Leu		Pro	
4572	1				5					10					15		
4573				a		aam	mam		~~~		~~~	~~~				mm s	0.0
4574					ATG												96
4575	Arg	GTÀ	Ser		Met	GTA	ser	vaı		тте	vaı	GTÀ	arg		TTE	Leu	
4576				20					25					30			
4577																	
4578					AGT												144
4579	Ser	GTÀ		GTÀ	Ser	Ile	Thr	_	Tyr	Ser	GIn	GIn		Arg	GTÀ	Leu	
4580			35					40					45				
4581																	
4582					AAG												192
4583	Leu	_	Cys	Ile	Lys	Thr		Leu	Thr	Gly	Arg	_	Lys	Asn	Gln	Val	
4584		50					55					60					
4585																	
4586					CAG												240
4587	Glu	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	
4588	65					70					75					80	
4589																	
4590					GGC												288
4591	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	
4592					85					90					95		
4593																	
4594					GGC												336
4595	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	
4596				100					105					110			
4597																	
4598	GTG	GAC	CAG	GAC	CTC	GTC	GGC	TGG	CAG	GCG	CCC	CCC	GGG	GCG	CGT	TCC	384
4599	Val	Asp	Gln	Asp	Leu	Val	Gly	Trp	Gln	Ala	Pro	Pro	Gly	Ala	Arg	Ser	
		-		-			-	-					-				

PAGE: 20

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														IN	PUT	SET: S30248.	raw
4600			115					120					125				
4601																	
4602	TTG	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	432
4603	Leu	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	
4604		130					135					140					
4605																	
4606					ATT												480
4607		Ala	Asp	Val	Ile		Val	Arg	Arg	Arg	_	Asp	Ser	Arg	Gly		
4608	145					150					155					160	
4609																	
4610					AGG												528
4611	Leu	Leu	ser	Pro	Arg	Pro	vaı	ser	туr		ьуs	GTĀ	Ser	АТа	-	GTÀ	
4612 4613					165					170					175		
4613	COA	OTHO.	OTTO	maa	CCT	maa	aaa	.מאמ	aam	ama	000	N TO CO	mma	aaa	aam	aaa	576
4614					Pro												5/6
4616	PIO	ьeu	rea	180	PIO	Ser	СТА	птъ	185	vaı	GIŊ	TTE	Pne	190	АТА	ATG	
4617				100					103					170			
4618	стδ	TGC	ACC	CGG	GGG	GTTT	aca	ΔAG	gcg	GTG	GAC	արա	CTC	כככ	СΨΔ	GAG	624
4619					Gly												021
4620		-1-	195	9	1			200					205			<b></b>	
4621																	
4622	TCC	ATG	GAA	ACT	ACT	ATG	CGG	TCT	TGA∕								651
4623					Thr				*//								
4624		210					215		ع	(2)	INF	DRMAT	rion	FOR	SEQ	ID NO:99:	
4625																	
4626		(i)	) SE(	QUEN	CE CH	IARAC	TER	[STI	cs:								
4627		(i)	(1	A) LI	ENGTH	I: 65	51 ba	se j	pairs	5							
4627 4628		(i)	( ) ( I	A) LI 3) TY	ENGTH PE:	I: 65	leic	ase p acid	pairs 1	5							
4627 4628 4629		(i)	() () ()	A) LI 3) TY 2) SY	ENGTH PE: PRANI	I: 65 nuc] EDNE	leic SS:	ase p acid sing	pairs 1	5							
4627 4628 4629 4630		(i)	() () ()	A) LI 3) TY 2) SY	ENGTH PE:	I: 65 nuc] EDNE	leic SS:	ase p acid sing	pairs 1	5							
4627 4628 4629 4630 4631			( ) ( I ( )	A) LI B) T' C) S' D) T(	ENGTH (PE: TRANI DPOLO	I: 65 nuc] DEDNE	leic ESS: line	ase p acid sing ar	pairs 1	5							
4627 4628 4629 4630 4631 4632			( ) ( I ( )	A) LI B) T' C) S' D) T(	ENGTH PE: PRANI	I: 65 nuc] DEDNE	leic ESS: line	ase p acid sing ar	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633			( ) ( I ( )	A) LI B) T' C) S' D) T(	ENGTH (PE: TRANI DPOLO	I: 65 nuc] DEDNE	leic ESS: line	ase p acid sing ar	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634		(ii)	() () () () () ()	A) LI B) TY C) SY D) TO	ENGTH YPE: TRANI DPOLO	I: 65 nuc] DEDNE	leic ESS: line	ase p acid sing ar	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634		(ii)	() (I () (I ) MOI ) FE!	A) LI B) TY C) SY O) TO LECUI	ENGTH YPE: TRANI DPOLO LE TY	H: 65 nucl DEDNE DGY:	il ba Leic ESS: line	ase p acid sing ar	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634 4635		(ii)	() (I () (I ) MOI ) FEA	A) LI 3) TY C) ST C) TO LECUI	ENGTH YPE: TRANI OPOLO LE TY	H: 65 nuc] DEDNE DGY: PE:	Eleic ESS: line CDNA	ase p acid sind ear	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634 4635 4636 4637		(ii)	() (I () (I ) MOI ) FEA	A) LI 3) TY C) ST C) TO LECUI	ENGTH YPE: TRANI DPOLO LE TY	H: 65 nuc] DEDNE DGY: PE:	Eleic ESS: line CDNA	ase p acid sind ear	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634 4635		(ii)	() (I () (I ) MOI ) FEA	A) LI 3) TY C) ST C) TO LECUI	ENGTH YPE: TRANI OPOLO LE TY	H: 65 nuc] DEDNE DGY: PE:	Eleic ESS: line CDNA	ase p acid sind ear	pairs 1	5							
4627 4628 4629 4630 4631 4632 4633 4634 4635 4636 4637 4638		(ii)	() (I) (I) (I) (I) (I)	A) LI B) TY C) ST C) TO LECUI	ENGTH YPE: TRANI DPOLO LE TY E: AME/H	I: 65 nucl DEDNE DGY: PE:  KEY: CON:	El baleic ESS: line CDNA	ase pacidesing	pairs i gle		):99:	•					
4627 4628 4629 4630 4631 4632 4633 4634 4635 4636 4637 4638 4639		(ii)	() (I) (I) (I) (I) (I)	A) LI B) TY C) ST C) TO LECUI	ENGTH YPE: TRANI OPOLO LE TY	I: 65 nucl DEDNE DGY: PE:  KEY: CON:	El baleic ESS: line CDNA	ase pacidesing	pairs i gle		) <b>:99</b> :	:					
4627 4628 4629 4630 4631 4632 4633 4634 4635 4636 4637 4638 4639 <b>4640</b>	ATG	(ii) (ix)	(1) (1) MOI (1) FE1 (1) (1) (1) SE(	A) LI B) TY C) SY C) SY C) TO LECUI	ENGTH YPE: TRANI DPOLO LE TY E: AME/H	I: 65 nucl DEDNI DEDNI DEVI PE: CEY: CON:	ESS: line CDNA CDS 1	ase pacions singular	pairs	ID NO			GGC	CTG	GTG	CCG	48
4627 4628 4629 4630 4631 4632 4633 4635 4635 4636 4637 4638 4639 4640 4641		(ii) (ix) (xi) GGC	() (1) (1) () () () () () () () () () () ()	A) LI B) TY C) SY C) SY C) TO LECUI ATURE A) NA B) LO QUENO AGC	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI	I: 65 nucl DEDNI DEDNI DEVI PE: CEY: CON: CAT	ESS: Leic ESS: Line CDN/	ase pacions singular	cairs gle SEQ 1	I <b>D N</b> O	AGC	AGC					48
4627 4628 4629 4630 4631 4632 4633 4635 4635 4636 4637 4638 4639 <b>4640</b> 4641 4642		(ii) (ix) (xi) GGC	() (1) (1) () () () () () () () () () () ()	A) LI B) TY C) SY C) SY C) TO LECUI ATURE A) NA B) LO QUENO AGC	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI	I: 65 nucl DEDNI DEDNI DEVI PE: CEY: CON: CAT	ESS: Leic ESS: Line CDN/	ase pacions singular	cairs gle SEQ 1	I <b>D N</b> O	AGC	AGC					48
4627 4628 4629 4630 4631 4632 4633 4635 4636 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644	Met	(ii) (ix) (xi) GGC	() (1) (1) () () () () () () () () () () ()	A) LI B) TY C) SY C) SY C) TO LECUI ATURE A) NA B) LO QUENO AGC	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI	I: 65 nucl DEDNI DEDNI DEVI PE: CEY: CON: CAT	ESS: Leic ESS: Line CDN/	ase pacions singular	cairs gle SEQ 1	I <b>D NO</b> CAC His	AGC	AGC			Val		48
4627 4628 4629 4630 4631 4632 4633 4635 4635 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644 4645 4646	Met 1 CGC	(ii) (ix) (xi) GGC Gly	(I)	A) LI B) TY C) SY C) SY C) TO LECUI ATURE A) NA B) LO QUENO Ser CAT	ENGTH YPE: TRANI DPOLO LE TY  E: AME/H DCAT His 5	I: 65 nucl DEDNI DEDNI DETNI D	CDS 1	ase ] acid sing ar  S51  CAT His	CAT His	CAC His 10 ATT	AGC Ser	AGC Ser	Gly AGA	Leu ATT	Val 15 ATT	Pro TTA	<b>4</b> 8
4627 4628 4629 4630 4631 4632 4633 4635 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644 4645 4646 4647	Met 1 CGC	(ii) (ix) (xi) GGC Gly	(I)	A) LI B) TY C) ST C) ST C) TO LECUI ATURE A) NA B) LO QUENO AGC Ser CAT His	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI CAT His 5	I: 65 nucl DEDNI DEDNI DETNI D	CDS 1	ase ] acid sing ar  S51  CAT His	CAT His	CAC His 10 ATT	AGC Ser	AGC Ser	Gly AGA	Leu ATT	Val 15 ATT	Pro TTA	
4627 4628 4629 4630 4631 4633 4633 4635 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644 4645 4646 4647 4648	Met 1 CGC	(ii) (ix) (xi) GGC Gly	(I)	A) LI B) TY C) SY C) SY C) TO LECUI ATURE A) NA B) LO QUENO Ser CAT	ENGTH YPE: TRANI DPOLO LE TY  E: AME/H DCAT His 5	I: 65 nucl DEDNI DEDNI DETNI D	CDS 1	ase ] acid sing ar  S51  CAT His	CAT His	CAC His 10 ATT	AGC Ser	AGC Ser	Gly AGA	Leu ATT	Val 15 ATT	Pro TTA	
4627 4628 4629 4630 4631 4633 4633 4635 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644 4645 4646 4647 4648 4649	Met 1 CGC Arg	(ii) (ix) (xi) GGC Gly GGC Gly	(I)	A) LI B) TY C) ST C) ST C) TO C ATURI A) NA B) LO C QUENC AGC Ser CAT His 20	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI CAT His 5 ATG Met	H: 65 nucl DEDNE DGY: PE: CY: CAT His GGT Gly	CDS CPTIC CAT His	ase jacio sino sino sino sino sino sino sino si	CAT His GTT Val	CAC His 10 ATT Ile	AGC Ser GTT Val	AGC Ser GGT Gly	Gly AGA Arg	ATT Ile 30	Val 15 ATT Ile	Pro TTA Leu	96
4627 4628 4629 4630 4631 4633 4633 4633 4633 4637 4638 4640 4641 4642 4643 4644 4645 4646 4647 4648 4649 4650	Met 1 CGC Arg	(ii) (ix) (xi) GGC Gly GGC Gly	(I)	A) LI B) TY C) ST C) ST C) TO ATURE A) NA B) LO QUENC AGC Ser CAT His 20 GGT	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI CAT His 5 ATG Met	H: 65 nucl DEDNI DEDNI DETNI D	CDS CPTIC CAT His ACG	ase ] acid sing ar  551  CAT His  GTT Val	CAT His CTT Val 25	CAC His 10 ATT Ile	AGC Ser GTT Val	AGC Ser GGT Gly	Gly AGA Arg ACG	ATT Ile 30	Val 15 ATT Ile	Pro TTA Leu CTA	
4627 4628 4629 4630 4631 4633 4633 4635 4637 4638 4639 <b>4640</b> 4641 4642 4643 4644 4645 4646 4647 4648 4649	Met 1 CGC Arg	(ii) (ix) (xi) GGC Gly GGC Gly	(I)	A) LI B) TY C) ST C) ST C) TO ATURE A) NA B) LO QUENC AGC Ser CAT His 20 GGT	ENGTH YPE: TRANI DPOLO LE TY E: AME/H DCATI CAT His 5 ATG Met	H: 65 nucl DEDNI DEDNI DETNI D	CDS CPTIC CAT His ACG	ase ] acid sing ar  551  CAT His  GTT Val	CAT His CTT Val 25	CAC His 10 ATT Ile	AGC Ser GTT Val	AGC Ser GGT Gly	Gly AGA Arg ACG	ATT Ile 30	Val 15 ATT Ile	Pro TTA Leu CTA	96

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														IN	NPUT	SET:	S30248.raw
4653																	
4654												GAC					192
4655	Leu	_	Cys	Lys	Lys	Thr		Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	
4656		50					55					60					
4657																	
4658												CAA					240
4659		Gly	Glu	Val	Gln		Val	Ser	Thr	Ala		Gln	Ser	Phe	Leu		
4660	65					70					75					80	
4661																	
4662												CAT					288
4663	Thr	Cys	Val	Asn		Val	Cys	Trp	Thr		Tyr	His	СТĀ	Ala		Ser	
4664					85					90					95		
4665				~~~													224
4666												CAG					336
4667	гāг	Thr	Leu		СТÄ	Pro	rys	СТÄ		тте	Thr	Gln	мет	_	Thr	Asn	
4668				100					105					110			
4669																	224
4670												CCC					384
4671	Val	Asp		Asp	Leu	vaı	стА		GIN	АТа	Pro	Pro		Α⊥а	arg	ser	
4672			115					120					125				
4673	mma		003	maa		mam	000	3.00	mas	~~~	amm	m > 0	mma	ama	3.00		422
4674												TAC					432
4675	Leu		PIO	cys	Thr	cys	_	ser	ser	ASP	Leu	Tyr	Leu	vaı	Thr	Arg	
4676		130					135					140					
4677 4678	CI A ITT	aam	a a a	ama	3 mm	000	аша	000	000	000	aaa	GAC	хаш	3.00	000	3.00	480
4679												Asp					400
4680	145	Ата	АБР	νат	TTG	150	vаı	Arg	Arg	AIG	155	ASP	Ser	Arg	сту	160	
4681	143					130					133					100	
4682	CTG	CTC	ሞሮሮ	ccc	AGG.	CCT	GTC.	TCC	ሞልሮ	ጥጥረ	AAG	GGC	ጥረጥ	сст	сст	CCT	528
4683												Gly					320
4684	пса	Dea	561	110	165	110	Val	Ser	ı yı	170	טעם	OL y	DCI	ALG	175	Q.L.y	
4685					103					1,0					1,5		
4686	CCA	СТС	стс	TGC	ССТ	TCG	GGG	CAC	GCT	стс	GGC	АТС	TTC:	CGG	GCT	GCC	576
4687												Ile					
4688				180			1		185		1			190			
4689																	
4690	GTA	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	624
4691												Phe					
4692		•	195	_	•			200			•		205				
4693																	
4694	TCC	ATG	GAA	ACT	ACT	ATG	CGG	TCT	TGA	<i>i</i> /							651
4695	Ser	Met	Glu	Thr	Thr	Met	Arg	Ser	* /								
4696		210					215		4	(2)	INF	ORMA!	rion	FOR	SEQ	ID 1	iO:100:
4697															_		
4698		(i	) SE	QUEN	CE CI	HARAG	CTER	ISTIC	cs:								
4699			( )	A) LI	ENGTI	H: 6!	51 ba	ase p	pairs	3							
4700			( 1	3) T	YPE:	nuc.	leic	acio	£								
4701					<b>CRANI</b>				gle			•					
4702			(1	) T(	OPOL	OGY:	line	ear									
4703																	
4704		(ii	MO1	LECUI	LE TY	YPE:	CDNA	A									
470E																	

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

																		30248.1		
	4706											1	11	j				al G	_{_	
	4707		(ix)		ATURI							$\mathcal{L}$		/ 1	11	λu	mer	al (1	9	
	4708					AME/I						7-1		( /	٠,	1	j	Τ	1	ر
	4709			(1	B) L(	CE DI	CON:	1	651				$\bigcap$			$h \sim h$	ナル	me-	core	(
>	4710		(xi)	) SE	QUEN	CE DI	ESCR:	[PTI	on: s	SEQ :	ID NO	):(100	<i>از</i> د		•	0				
	4711																			
	4712					CAT													48	
	4713	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu	Val	Pro			
	4714	1				5					10					15				
	4715																			
	4716					ATG													96	
	4717	Arg	Gly	Ser		Met	Gly	Ser	Val		Ile	Val	Gly	Arg		Ile	Leu			
	4718				20					25					30					
	4719																			
	4720					GGT													144	
	4721	Ser	Pro		Gly	Gly	Ile	Thr		Tyr	Ser	Gin	Gin		Arg	GTĀ	Leu			
	4722			35			•		40					45						
	4723																			
	4724					ATC													192	
	4725	Leu	_	Cys	ITe	Ile	Thr		Leu	Thr	GTÀ	Arg	_	Lys	Asn	GIN	vaı			
	4726		50					55					60							
	4727															~=~				
	4728					CAG										-			240	
	4729		GTÀ	GIu	Val	Gln		vaı	Ser	Thr	Ата		GIN	Ser	Pne	Leu				
	4730	65					70					75					80			
	4731		maa	ama		~~~	ama	mam	таа		amm	m. a	~ m	aam	aam	000	ma s		200	
	4732					GGC													288	
	4733	Thr	cys	vaı	ASN	Gly	vaı	cys	Trp	Thr		Tyr	HIS	GTA	АТа		ser			
	4734					85					90					95				
	4735		300	mm a	000	000	003	330	000	<b>aa</b> .	» ma	3.00	a.a	3.00	ma a	мат	3 3 m		226	
	4736					GGC													336	
	4737 4738	гуѕ	Thr	Leu		Gly	PIO	ьys	GTA		тте	Thr	GIN	мес	110	THE	ASII		•	
	4739				100					105					110					
	4740	CTC.	CAC	CAG	CAC	CTC	ama.	aca	TICC.	CAC	aaa	CCC	ccc	aaa	aca	COT	TCC		384	
	4741					Leu													304	
	4742	Val	изр	115	rsp	neu	Val	GLY	120	GIII	YTO	FIO	FIO	125	VIG	AL 9	Der			
	4743			113					120					123						
	4744	ጥጥር	ΔCΔ	CCA	TCC	ACC	ጥረም	aac	<b>NGC</b>	<b>ሞሮ አ</b>	GAC	СФФ	ሞልሮ	ጥጥረ፤	GTC.	λCG	AGA		432	
	4745					Thr													102	
	4746	пеа	130	110	Cys	1111	Cys	135	Der	561	rpp	рец	140	пси	741		9			
	4747		150					155					110							
	4748	САТ	GCT	GAC	GTC	ATT	cca	GTG	CGC	caa	cgg	GGC	GAC	ΔGT	ΔGG	GGG	AGC		480	
	4749					Ile														
	4750	145					150		9	9	5	155			5	2	160			
	4751																			
	4752	CTG	CTC	TCC	CCC	AGG	ССТ	GTC	TCC	TAC	TTG	AAG	GGC	тст	TCG	GGT	GGT		528	
	4753					Arg													· – <del>-</del>	
	4754					165				- , -	170	_,_	1			175	2			
	4755										3									
	4756	CCA	CTG	CTC	TGC	CCT	TCG	GGG	CAC	GCT	GTG	GGC	ATC	TTC	CGG	GCT	GCC		576	
	4757					Pro														
	4758				180			-1		185		-2			190	Ī				

													IN	<i>PUT</i>	SET: S	S30248.raw
4759 4760 4761 4762				GGG Gly												624
4763 4764 4765 4766 4767				ACT Thr				TGA *		INF	ORMA'	rion	FOR	SEQ	ID N	651 0:101:
4767 4768 4769 4770 4771 4772 4773	(i)	() (1 (0	A) L1 B) T' C) S'	CE CI ENGTI YPE: IRANI OPOLO	i: 6! nuc: DEDNI	51 ba leic ESS:	ase p acio sino	pair: d	5							
4774 4775 4776 4777 4778 4779		) FE	ATURI A) N	LE TY E: AME/I	KEY:	CDS										
4780 4781 <b>4782</b> 4783	(xi)	) SE(	QUEN	CE DI	escr:	[PTI	on: :	SEQ I	ED NO	0:10	l:					
4784 4785 4786 4787				CAT His 5												48
4788 4789 4790 4791				ATG Met												96
4792 4793 4794				GGT Gly												144
4795 4796 4797 4798 4799				ATC Ile												192
4800 4801 4802 4803				CAG Gln												240
4804 4805 4806 4807				GGC Gly 85					_	Tyr						288
4808 4809 4810 4811				GGC Gly												336

PAGE: 28

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RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

					PAH	I ME	APP.	LICE	M	IN C	לטוביו	4170	,/23					IIWE:	0:0
										1	//	an	Jul !	$I_{IN}$	<i>PUT</i>	SET	: <b>S</b> 3	0248.raw	,
5023	Cys	Met	Ser		Asp	Leu	Glu	Val	Val		, <b>,</b> ,								
5024				660					665		(2)	INFO	RMAT	ON I	FOR	SEQ	ID	NO:103	3:
5025																			
5026		(1)	•	_	CE CI														
5027					ENGT					rs									
5028			•	•	YPE:														
5029				-	TRANI				ате										
5030			(1	) T	OPOL	JGY:	Tine	ear											
5031		,	. MOI	DOW	r to my	200-	a DNI												
5032 5033		(11	) MOI	LECU	LE T	IPE:	CDM	H.											
5033																			
5035		/ i v	) FE	וסוזיים	F •														
5036		( 11	•		AME/I	KEV:	CDS												
5037			-	-	OCAT:			1997											
5038			٠,-	·, -															
5039		(ix	) FE	ATURI	E:										•				
5040		,	-		AME/I	KEY:	CDS												
5041			-	-	OCAT:			1995											
5042				•															
5043																			
5044		(xi	) SE(	QUEN	CE DI	escr:	[PTI	ON: S	SEQ :	ID N	0:10	3:							
5045																			
5046					CAT													4	8
5047	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu		Pro	)		
5048	1				5					10					15				
5049																		_	
5050					ATG													5	96
5051	Arg	СТÄ	Ser		Met	GTA	Ser	Val		ITe	Val	СТĀ	Arg		Ile	Leu	l		
5052				20					25					30					
5053	mam	aam	3.00	aam	3.00	3.00	300	000	mag	шаа	~ .	a.a	100	000	000	OM 3		1.4	14
5054 5055					AGT Ser													14	4
5056	Sel	сту	35	GLY	261	TIE	1111	40	ıyı	Set	GIII	GIII	45	Arg	GIY	пеп	ı		
5057			33					40					43						
5058	Стт	GGT	TGC	ΔAG	ATC	ΔСТ	AGC	Стфф	ACA	GGC	caa	GAC	ΔAG	AAC	CAG	GTC	į	19	32
5059					Ile														-
5060		50	-1-	-1-			55			1	5	60	-1-						
5061																			
5062	GAG	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	}	24	10
5063					Gln														
5064	65	_				70					75					80	ı		
5065																			
5066	ACC	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	TAC	CAT	GGT	GCT	GGC	TCA		28	88
5067	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	•		
5068					85					90					95				
5069																			
5070					GGC													33	36
5071	Lys	Thr	Leu		Gly	Pro	Lys	Gly		Ile	Thr	Gln	Met	_	Thr	Asn	l		
5072				100					105					110					
5073		<b></b>	<i></i>	<b></b> -				<b></b>	<b>~~</b> ~				<b></b>	~~~	~~-		1		
5074					CTC													38	34
5075	Val	Asp	GIn	Asp	Leu	Val	СŢУ	Trp	Gln	Ala	Pro	Pro	GTÀ	Ala	Arg	Ser	•		

														IN	I <b>PI</b> IT	SET.	S30248, raw
5076			115					120					125	11	11 0 1	DLII.	330240.74W
5077																	
5078	TTG	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	432
5079	Leu	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	
5080		130		-		-	135			_		140				_	
5081																	
5082	CAT	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	480
5083	His	Ala	Asp	Val	Ile	Pro	Val	Arg	Arg	Arg	Gly	Asp	Ser	Arg	Gly	Ser	
5084	145		-			150		_	•	_	155	-		_	_	160	
5085																	
5086	CTG	CTC	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	528
5087	Leu	Leu	Ser	Pro	Arg	Pro	Val	Ser	Tyr	Leu	Lys	Gly	Ser	Ser	Gly	Gly	
5088					165					170					175		
5089																	
5090					CCT												576
5091	Pro	Leu	Leu	Cys	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	
5092				180					185					190			
5093																	
5094	GTA	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	$\mathbf{T}\mathbf{T}\mathbf{T}$	GTG	CCC	GTA	GAG	624
5095	Val	Cys	Thr	Arg	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	
5096			195					200					205				
5097																	
5098					ACT												672
5099	Ser		Glu	Thr	Thr	Met	_	Ser	Pro	Val	Phe		Asp	Asn	Ser	Ser	
5100		210					215					220					
5101																•	
5102					CCG												720
5103		Pro	АТа	νа⊥	Pro		ser	Phe	GIN	vaı		His	Leu	HIS	Ата		
5104	225					230					235					240	
5105 5106	N CITE	000	3.00	aaa	AAG	N CITT	» Om	* * *	ama	000	aam	aa x	mam	aa x	aaa	<b>CA A</b>	768
5105					Lys												768
5107	1111	GIY	Ser	GLY	245	per	1111	пур	Val	250	ита	MIG	ıyı	нта	255	GIII	
5109					243					230					233		
5110	GGG	ሞልሮ	λλC	CTC	CTC	CTC	CTC	חממ	CCG	TCC	CTT	acc	ССТ	<b>ACC</b>	ттδ	GGG	816
5111					Leu												010
5112	O±,	- 7 -	2,5	260		141	ac a		265	501	142	ALG	71_4	270	204	<b>-</b>	
5113																	
5114	TTT	GGG	GCG	TAT	ATG	TCT	AAG	GCA	CAC	GGT	ATT	GAC	CCC	AAC	ATC	AGA	864
5115					Met												
5116		•	275	•			•	280		-		•	285			•	
5117																	
5118	ACT	GGG	GTA	AGG	ACC	ATT	ACC	ACA	GGC	GCC	CCC	GTC	ACA	TAC	TCT	ACC	912
5119	Thr	Gly	Val	Arg	Thr	Ile	Thr	Thr	Gly	Ala	Pro	Val	Thr	Tyr	Ser	Thr	
5120		290		-			295		_			300		-			
5121																	
5122					CTT												960
5123	Tyr	Gly	Lys	Phe	Leu	Ala	Asp	Gly	Gly	Cys	Ser	Gly	Gly	Ala	Tyr	Asp	
5124	305					310					315					320	
5125																	
5126					GAT												1008
5127	Ile	Ile	Ile	Cys	Asp	Glu	Cys	His	Ser	Thr	Asp	Ser	Thr	Thr		Leu	
5128					325					330					335		

TIME: 16:06:48

DATE: 12/09/98

INPUT SET: S30248,raw	INPUT	SET:	S30248.ran
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Signature   Sign															IN	PUT	SET: S3024	8.raw
Since   Color   Colo	5129							~~~	~	~~~	~~~				~~~	~~~	omm.	1056
Single   S																		1026
Signature   Sign		GTÀ	тте	СТĀ		val	Leu	Asp	GIN		GLU	Thr	АТа	GTÀ		Arg	Leu	
1104   S135					340					345					350			
Single   S		ama	ama	ama	~~~				aam		aa.	maa	ama	3.00	ama	<b>aa</b> 2	CAC	1104
Single   S																		1104
Single   S		vaı	vaı		АТа	Thr	Ата	Thr		Pro	GTÅ	ser	vaı		var	Pro	пта	
Side				333			•		300					300				
Singer   Pro   Asn   Tie   Glu   Glu   Val   Ala   Leu   Ser   Asn   Thr   Gly   Glu   Tie   Pro   Phe   370   370   375   375   380   380   380   380   380   380   380   380   400   5143   385   390   400   5144   385   390   400   5145   380   395   400   5145   405   410   415   410   415   410   415   410		aas	2 2 4	N III CI	a a a	aza	ama	ccc	CTIC	шаш	2 2 77	a com	CCA	CAC	አመረ	ccc	ጥጥር	1152
Side																		1152
5141   5142   TAT GGC AAA GCC ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC   1200   1201		PIO		TTE	GIU	GIU	vaı		пеп	Ser	ASII	1111	-	GIU	116	FIO	File	
Site			370					3/3					300					
Tyr Gly Lys Ala Tle Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu 395   390   395   395   400   395   395   400   395		ጥልጥ	aaa	A A A	acc	እጥሮ	CCC	<b>አ</b> ጥጥ	GAA	acc	አጥሮ	<b>ACC</b>	aaa	CCA	A G G	СУТ	ርጥር	1200
Side   ATT   TIC   TGT   CAT   TCC   AAG   AAG   AAG   TGC   GAC   GAC																		1200
S145		_	GLY	цуз	AIG	116		110	OLU	AIG	110		013	OL,	9			
Silado		303					370					0,0					100	
Tile Phe Cys His Ser Lys Lys Cys Asp   Glu Leu Ala Ala Lys Leu		Δጥጥ	TTC	ጥርጥ	САТ	TCC	AAG	AAG	AAG	TGC	GAC	GAG	CTC	GCC	GCA	AAG	CTG	1248
Side																		
S149				-1-			-1-	-1-	-1-	-1-								
Siso																		
Si52   Si53   Si53   Si54   TCC   GTC   ATA   CCA   ACT   ATC   GGA   GAC   GTC   GTC   GTG   GCA   ACA   GAC   GCT   GCA   Si55   Ser   Val   Ile   Pro   Thr   Ile   Gly   Asp   Val   Val   Val   Val   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Ala   Thr   Asp   Ala   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Ala   Thr   Ala   Thr   Ala   Ala   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Thr   Thr   Thr   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Ala   Thr		TCA	GGC	CTC	GGA	ATC	AAC	GCT	GTG	GCG	TAT	TAC	CGG	GGG	CTC	GAT	GTG	1296
Si52   Si53   Si53   Si54   TCC   GTC   ATA   CCA   ACT   ATC   GGA   GAC   GTC   GTC   GTG   GCA   ACA   GAC   GCT   GCA   Si55   Ser   Val   Ile   Pro   Thr   Ile   Gly   Asp   Val   Val   Val   Val   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Asp   Ala   Ala   Ala   Thr   Asp   Ala   Ala   Thr   Ala   Thr   Asp   Ala   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Ala   Thr   Ala   Thr   Ala   Ala   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Thr   Ala   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Thr   Thr   Thr   Thr   Thr   Thr   Thr   Ala   Ala   Thr   Ala   Thr																		
Si54   TCC   GTC   ATA   CCA   ACT   ATC   GGA   GAC   GTC   GTC   GTG   GCA   ACA   GAC   GCT	5152		•		_						•	•	-	•		_		
Si55	5153																	
Si56	5154	TCC	GTC	ATA	CCA	ACT	ATC	GGA	GAC	GTC	GTT	GTC	GTG	GCA	ACA	GAC	GCT	1344
Since   Sinc	5155	Ser	Val	Ile	Pro	Thr	Ile	Gly	Asp	Val	Val	Val	Val	Ala	Thr	Asp	Ala	
Si58	5156			435					440					445				
Since   Leu Met   Thr   Gly   Tyr   Thr   Gly   Asp   Phe   Asp   Ser   Val   Ile   Asp   Cys   Ash	5157																	
Sie	5158	CTG	ATG	ACG	GGC	TAT	ACG	GGC	GAC	TTT	GAC	TCA	GTG	ATC	GAC	TGT	AAC	1392
5161         5162         ACA TGT GTC ACC CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC         1440           5163         Thr Cys Val Thr Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr 475         480           5164         465         ACG ACC ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG         1488           5165         ATT GAG ACG ACG ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG         1488           5167         Tle Glu Thr Thr Thr Thr Val Asp Ala Val Ser Arg Ser Gln Arg 495         485           5169         ACG GGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT AGG ACT GTG CGC TGG GGC ATC TAC AGG TTT GTG ACT AGG ACT GTG GAG ACC GGC GGC ATC TGG GAG ACC GGC GGC ATC TGG GTC CTG TGT GAG GGC ATC TGC GGC GGC ATC TGC GGC GGC GGC ATC TGC GGC GGC GGC ATC TGC GGC GGC GGC GGC GGC ATC TGC GGC GGC GGC GGC GGC GGC GGC GGC ATC TGC GGC GCC GGC GGC GGC GGC GGC GGC G		Leu		Thr	Gly	Tyr	Thr	Gly	Asp	Phe	Asp	Ser	Val	Ile	Asp	Cys	Asn	
5162         ACA         TGT         GTC         ACC         CAG         ACA         GTC         GAC         TTC         AGC         TTG         GAT         CCC         ACC         TTC         ACC         1440           5163         Thr         Cys         Val         Thr         GIN         TTC         Val         ASP         Phe         Ser         Leu         Asp         Pro         Thr         Phe         Thr         Thr         Hh         480         490         490         495 <td></td> <td></td> <td>450</td> <td></td> <td></td> <td></td> <td></td> <td>455</td> <td></td> <td></td> <td></td> <td></td> <td>460</td> <td></td> <td></td> <td></td> <td></td> <td></td>			450					455					460					
5163'         Thr Cys         Val Thr Gln         Thr Val Asp Phe Ser         Leu Asp Pro Thr Phe Thr 480           5164 465         465         470         470         475         480           5165 5166 ATT GAG ACG ACG ACG ACG GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG 1488         5167 Ile Glu Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg 495         1488           5168 5169 5170 CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT 1536         15171 Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr 5172 500 505 510         1536           5171 Arg Gly Arg Thr Gly Arg GGC ATG TC GAT TCC TCG GTC CTG TGT GAG 1584         515 510         510           5173 5174 CCG GGA GAA CGG CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG 1584         515 510         525           5177 5178 TGC TAT GAC GCG GGC GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC 1632         1632           5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180         535																		
5164       465       470       475       480         5165       5166       ATT GAG ACG ACG ACG ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG       1488         5167       Ile Glu Thr Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg       5168       495         5168       485       490       495         5170       CGG GGT AGG ACT GGC AGG GGT AGG AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT       1536         5171       Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr       5172         5173       500       505       510         5173       5174       CCG GGA GAA CGG CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG       1584         5175       Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu       515         5177       5178       TGC TAT GAC GCG GGC TGT GGT TGG TAC GAG CTC ACC CCC GCC GAG ACC       1632         5179       Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr       540																		1440
5165         5166       ATT GAG ACG ACG ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG       1488         5167       Ile Glu Thr Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg       495         5168       485       485       490       495         5169       495       495       495         5170       CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT       1536         5171       Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr       517         5172       500       505       510         5173       517       500       505       510         5173       517       500       505       510         5173       517       510       510         5175       510       520       525         5177       518       515       520       525         5177       5178       TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC       1632         5179       Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr       540			Cys	Val	Thr	GIn		Val	Asp	Phe	Ser		Asp	Pro	Thr	Pne		
5166       ATT GAG ACG ACG ACG ACG GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG       1488         5167       Ile Glu Thr Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg       1495         5168		465					470					4/5					480	
Sief   Tie Glu Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg		3.00	<b>a.</b> a	100	100	100	ama	aam.	<b>~</b>	a.a	991	ama	maa	000	maa	ara	aaa	1400
5168       485       490       495         5169       5170       CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT       1536         5171       Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr       5172       510         5173       5174       CCG GGA GAA CGG CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG       1584         5175       Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu       517         5176       515       520       525         5177       5178       TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC       1632         5179       Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr       540																		1400
5169           5170         CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT         1536           5171         Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr         5172         500         505         510		тте	GIU	Thr	Thr		vaı	Pro	GIN	ASP		vaı	ser	Arg	Ser		Arg	
5170						403					470					4))		
5171       Arg Gly Arg Thr Gly Arg Gly Arg Arg Gly Ile Tyr Arg Phe Val Thr         5172       500       505       510         5173       5173       5174       CCG GGA GAA CGG CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG       1584         5175       Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu       5176       520       525         5177       5178       TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC       1632         5179       Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr       530       535       540		caa	CCT	N.C.C	አሮሞ	aac	λCC	CCT	MGG	λGλ	aaa	ልሞሮ	ሞልሮ	A CC	արդ	стс	<b>Д</b> СТ	1536
5172																		1330
5173 5174		n. g	Gry	Arg		CLY	AL 9	017	~- 9	_	019	110	- 7 -	9				
5174					200					233								
5175 Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu 5176 515 520 525  5177  5178 TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC 5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180 530 535 540		ccc	GGA	GAA	CGG	CCC	TCG	GGC	ATG	TTC	GAT	TCC	TCG	GTC	CTG	TGT	GAG	1584
5176 515 520 525 5177 5178 TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC 1632 5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180 530 535 540																		
5177 5178 TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC 5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180 530 535 540			1		9			1			<b>-</b>					. ,	<del></del>	
5178 TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC 1632 5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180 530 535 540																		
5179 Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr 5180 530 535 540		TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	CTC	ACC	CCC	GCC	GAG	ACC	1632
5180 530 535 540																		
		-		-			4		•	4								•
	5181														•			

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											~~.						S30248.raw
5182						GCC											1680
5183		vaı	Arg	Leu	Arg	Ala	туг	Leu	Asn	Thr		GTÄ	ren	Pro	νат	_	
5184	545					550					555					560	
5185										·							
5186						TTC											1728
5187	Gln	Asp	His	Leu		Phe	Trp	Glu	Ser		Phe	Thr	Gly	Leu		His	
5188					565					570					575		
5189																	
5190						TTG											1776
5191	Ile	Asp	Ala	His	Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ala	Gly	Asp	Asn	Phe	
5192				580					585					590			
5193																	
5194	CCC	TAC	CTG	GTA	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC	1824
5195	Pro	Tyr	Leu	Val	Ala	Tyr	Gln	Ala	Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala	
5196			595					600					605				
5197																	
5198	CCA	CCT	CCA	TCA	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	1872
5199	Pro	Pro	Pro	Ser	Trp	Asp	Gln	Met	Trp	Lys	Cys	Leu	Ile	Arg	Leu	Lys	
5200		610			-	-	615		-	•	-	620		-		-	
5201																	
5202	CCT	ACG	CTG	CAC	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	1920
5203	Pro	Thr	Leu	His	Glv	Pro	Thr	Pro	Leu	Leu	Tvr	Arg	Leu	Glv	Ala	Val	
5204	625				-4	630					635	,		-		640	
5205										•							
5206	CAA	AAT	GAG	GTC	ACC	CTC	ACC	CAC	ccc	АТА	ACC	AAA	TAC	ATC	ATG	GCA	1968
5207						Leu											
5208	J				645					650		-1-	-,-		655		
5209					0.10												
5210																	
	ሞርር	ΔТС	TCG	CCT	GAC	CTG	GAG	GTC	ርጥሮ	יוייי) ב							1998
						CTG				ACT	/						1998
5211				Ala		CTG Leu			Val	1/	/- (2) -	r n froi	Э <b>М</b> Д Т Т	ION I	TOR S	SEO T	
5211 5212									Val	1/	/- (2) :	ENFO	RMAT:	ION I	FOR S	SEQ I	1998 D NO:104:
5211 5212 5213		Met	Ser	Ala 660	Asp	Leu	Glu	Val	Val 665	1/	(2)	INFO	RMAT:	ION I	FOR S	SEQ I	
5211 5212 5213 5214		Met	Ser ) SE	Ala 660 QUENC	Asp CE CI	Leu HARAG	Glu CTER	Val (STIC	Val 665 Cs:		(2)	INFO	RMAT:	ION I	FOR :	SEQ I	
5211 5212 5213 5214 5215		Met	Ser ) SE(	Ala 660 QUENC A) LI	Asp CE CI ENGTI	Leu HARAG H: 19	Glu CTERI 998 l	Val (STIC pase	Val 665 CS: pai		(2)	Infoi	RMAT:	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216		Met	Ser ) SE( (1	Ala 660 QUENC A) LI B) T	Asp CE CI ENGTI YPE:	Leu HARAG H: 19 nucl	Glu CTERI 998 k Leic	Val STIC Sase acid	Val 665 CS: pai:		(2)	ENFOI	RMAT:	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217		Met	Ser ) SE( (1 (1	Ala 660 QUENC A) LI B) TY	Asp CE CI ENGTI YPE: TRANI	Leu HARAG H: 19 nucl	Glu CTERI 998 k Leic ESS:	Val STIC ase acid sing	Val 665 CS: pai:		(2)	CNFOI	RMAT:	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218		Met	Ser ) SE( (1 (1	Ala 660 QUENC A) LI B) TY	Asp CE CI ENGTI YPE: TRANI	Leu HARAG H: 19 nucl	Glu CTERI 998 k Leic ESS:	Val STIC ase acid sing	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219		Met (i	Ser ) SE( (1 (1	Ala 660 QUENCA) LI B) TS	Asp CE CH ENGTH YPE: TRANI	Leu HARAG H: 19 nucl DEDNI	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220		Met (i	Ser ) SE( (1 (1	Ala 660 QUENCA) LI B) TS	Asp CE CH ENGTH YPE: TRANI	Leu HARAG H: 19 nucl	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		<b>(2)</b> :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221		Met (i	Ser ) SE( (1 (1	Ala 660 QUENCA) LI B) TS	Asp CE CH ENGTH YPE: TRANI	Leu HARAG H: 19 nucl DEDNI	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222		Met (i	Ser ) SE( (1 (1	Ala 660 QUENCA) LI B) TS	Asp CE CH ENGTH YPE: TRANI	Leu HARAG H: 19 nucl DEDNI	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT:	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223		Met (i	Ser ) SE( (1 (1	Ala 660 QUENCA) LI B) TS	Asp CE CH ENGTH YPE: TRANI OPOLO	Leu HARAG H: 19 nucl DEDNI	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224		<pre>(i) (ii)</pre>	Ser ) SE( (1) (1) (1) ) MOI	Ala 660 QUENCA) LI B) TY C) SY D) TC	Asp CE CH ENGTH (PE: TRANI DPOLO	Leu HARAG H: 19 nucl DEDNI	Glu CTERI 998 h Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225		<pre>(i) (ii)</pre>	Ser ) SE( (1) (1) (1) ) MO(	Ala 660 QUENCA) LI B) TS C) SS D) TC LECUI	Asp CE CH ENGTH YPE: TRANI DPOLO LE TY	HARAGE NUCLOSED NE CONTROL OCT NE CO	Glu CTERI 998 l Leic ESS: line	Val ESTIC Dase acic sinc	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226		<pre>(i) (ii)</pre>	Ser ) SE( (1) (1) (1) ) MO( (1)	Ala 660 QUENCA) LI B) TY C) SY D) TC LECUI	Asp CE CH ENGTH YPE: TRANI OPOLO LE TY	HARAGE NUCCONFINE OF THE PROPERTY OF THE PROPE	Glu CTERI 998 l Leic ESS: line CDNA	Val ISTIC Dase acic since ear	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227		<pre>(i) (ii)</pre>	Ser ) SE( (1) (1) (1) ) MO( (1)	Ala 660 QUENCA) LI B) TY C) SY D) TC LECUI	Asp CE CH ENGTH YPE: TRANI OPOLO LE TY	HARAGE NUCLOSED NE CONTROL OCT NE CO	Glu CTERI 998 l Leic ESS: line CDNA	Val ISTIC Dase acic since ear	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228		<pre>(i) (ii)</pre>	Ser ) SE( (1) (1) (1) ) MO( (1)	Ala 660 QUENCA) LI B) TY C) SY D) TC LECUI	Asp CE CH ENGTH YPE: TRANI OPOLO LE TY	HARAGE NUCCONFINE OF THE PROPERTY OF THE PROPE	Glu CTERI 998 l Leic ESS: line CDNA	Val ISTIC Dase acic since ear	Val 665 CS: pai:		/- (2) :	INFO	RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229		<pre>(i) (ii)</pre>	Ser (1) (1) (1) (1) (1) (1) (1) (1)	Ala 660 QUENCA) LI B) TY C) SY C) TC LECUI	Asp CE CH ENGTH YPE: TRANH DPOLO LE TY	HARACH: 19 nucleon population of the control of the	CTERI 998 l leic ESS: line CDNA	Val ISTIC Dase acid sing ear	Val 665 S: pair Je	C s			RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229 <b>5230</b>		<pre>(i) (ii)</pre>	Ser (1) (1) (1) (1) (1) (1) (1) (1)	Ala 660 QUENCA) LI B) TY C) SY C) TC LECUI	Asp CE CH ENGTH YPE: TRANH DPOLO LE TY	HARAGE NUCCONFINE OF THE PROPERTY OF THE PROPE	CTERI 998 l leic ESS: line CDNA	Val ISTIC Dase acid sing ear	Val 665 S: pair Je	C s			RMAT	ION I	FOR S	SEQ I	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229 <b>5230</b>	Cys	<pre>(i) (ii) (ix)</pre>	Ser (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Ala 660  QUENC A) LI B) TY C) SY C) TC LECUI	ASP CE CHENGTH YPE: TRANI OPOLO LE TY  E: AME/I OCATI	HARACH: 19 nuclocal property of the control of the	CTERIO 98 1 Leic ESS: line CDN/	Val ISTIC Dase acid singuar A	Val 665 S: pair gle	CS ID NO	):10 <b>4</b>	1:					D NO:104:
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229 <b>5230</b> 5231 5232	Cys	(ii) (iii) (ix)	Ser (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Ala 660  QUENCA) LI B) TY C) SY C) SY C) LECUI	ASP CE CHENGTH YPE: TRANI OPOLO LE TY  AME/I OCATI	HARACH: 19 nuclocal property of the control of the	CTERIO 98 1 Leic ESS: line CDN/	Val ISTIC Dase acid sing ear	Val 665 S: pair gle	ED NO	):104 AGC	1: AGC	GGC	CTG	GTG	CCG	
5211 5212 5213 5214 5215 5216 5217 5218 5219 5220 5221 5222 5223 5224 5225 5226 5227 5228 5229 <b>5230</b>	Cys	(ii) (iii) (ix)	Ser (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Ala 660  QUENCA) LI B) TY C) SY C) SY C) LECUI	ASP CE CHENGTH YPE: TRANI OPOLO LE TY  AME/I OCATI	HARACH: 19 nuclocal property of the control of the	CTERIO 98 1 Leic ESS: line CDN/	Val ISTIC Dase acid sing ear	Val 665 S: pair gle	ED NO	):104 AGC	1: AGC	GGC	CTG	GTG	CCG	D NO:104:

## RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:06:50

INPUT SET: S30248.raw

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GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG

Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu

TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC

Ser Met Glu Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser

														71		CDM	520240
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5288						CAG											720
5289		Pro	Ата	vaı	Pro	Gln	ser	Pne	GIN	vaı		HIS	Leu	HIS	Ата		
5290	225					230					235					240	
5291														~~~	~~~	~	360
5292						AGT											768
5293	Thr	GTÀ	Ser	GTA	_	Ser	Thr	Lys	val		Ala	A⊥a	Tyr	АТа		GIN	
5294					245					250					255		
5295													·				
5296						GTC											816
5297	GТĀ	Tyr	Lys		Leu	Val	Leu	Asn		Ser	Val	A⊥a	Ala		Leu	GТÄ	
5298				260					265					270			
5299									~~~	a am							0.54
5300						TCT											864
5301	Phe	GTÄ		Tyr	Met	Ser	Lys		His	ста	ITe	Asp		Asn	тте	arg	
5302			275					280					285				
5303									~~~	~~~		ama		m. a	mam		010
5304						ATT											912
5305	Thr	-	vaı	Arg	Thr	Ile		Thr	GLY	АТа	Pro		Thr	Tyr	Ser	THE	
5306 5307		290					295					300					
5307	mam	aaa	220	mmm	amm.	GCC	CAM	a a m	aam.	maa	шаш	aaa	000	COM	шуш	CAC	960
5300																	960
5310	305	сту	гуз	Pne	rea	Ala 310	ASP	СТУ	GIY	cys	315	сту	СТУ	АТа	ıyı	320	
5310	303					310					313					320	
5311	አጥሮ	አጥአ	አጥአ	ሞረሞ	CAT	GAG	тас	CAT	<b>ጥ</b> ሮ እ	λСΨ	GAC	ሞሮር	λСΨ	እሮአ	አጥሮ	ጥጥር	1008
5313						Glu											1000
5314	110		110	cys	325	0.10	O, D		501	330	nop	501			335		
5315					323					550					000		
5316	GGC	ATC	GGC	ACA	GTC	CTG	GAC	CAA	GCG	GAG	ACG	GCT	GGA	GCG	CGG	СТТ	1056
5317						Leu											
5318	-		- 4	340					345				•	350	•		
5319																	
5320	GTC	GTG	CTC	GCC	ACC	GCT	ACG	CCT	CCG	GGA	TCG	GTC	ACC	GTG	CCA	CAC	1104
5321	Val	Val	Leu	Ala	Thr	Ala	Thr	Pro	Pro	Gly	Ser	Val	Thr	Val	Pro	His	
5322			355					360		_			365				
5323																	
5324	CCA	AAC	ATC	GAG	GAG	GTG	GCC	CTG	TCT	AAT	ACT	GGA	GAG	ATC	CCC	TTC	1152
5325	Pro	Asn	Ile	Glu	Glu	Val	Ala	Leu	Ser	Asn	Thr	Gly	Glu	Ile	Pro	Phe	
5326		370					375					380				•	
5327																	
5328						CCC											1200
5329	Tyr	Gly	Lys	Ala	Ile	Pro	Ile	Glu	Ala	Ile	Arg	Gly	Gly	Arg	His	Leu	
5330	385					390					395					400	
5331																	
5332						AAG											1248
5333	Ile	Phe	Cys	His	Ser	Lys	Lys	Lys	Cys		Glu	Leu	Ala	Ala		Leu	
5334					405					410					415		
5335																	
5336						AAC											1296
5337	Ser	Gly	Leu	_	Ile	Asn	Ala	Val		Tyr	Tyr	Arg	Gly		Asp	Val	
5338				420					425					430			
5339																	
5340	TCC	GTC	ATA	CCA	ACT	ATC	GGA	GAC	GTC	GTT	GTC	GTG	GCA	ACA	GAC	GCT	1344

TIME: 16:06:51

DATE: 12/09/98

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5343																		
5344	CTG	ATG	ACG	GGC	TAT	ACG	GGC	GAC	TTT	GAC	TCA	GTG	ATC	GAC	TGT	AAC	1	1392
5345	Leu	Met	Thr	Gly	Tyr	Thr	Gly	Asp	Phe	Asp	Ser	Val	Ile	Asp	Cys	Asn		
5346		450					455					460		_				
5347																		
5348	ACA	TGT	GTC	ACC	CAG	ACA	GTC	GAC	TTC	AGC	TTG	GAT	CCC	ACC	TTC	ACC	. ]	1440
5349	Thr	Cys	Val	Thr	Gln	Thr	Val	Asp	Phe	Ser	Leu	Asp	Pro	Thr	Phe	Thr		
5350	465					470		_			475	_				480		
5351																		
5352	ATT	GAG	ACG	ACG	ACC	GTG	CCT	CAA	GAC	GCA	GTG	TCG	CGC	TCG	CAG	CGG	]	1488
5353	Ile	Glu	Thr	Thr	Thr	Val	Pro	Gln	Asp	Ala	Val	Ser	Arg	Ser	Gln	Arg		
5354					485					490					495			
5355																		
5356	CGG	GGT	AGG	ACT	GGC	AGG	GGT	AGG	AGA	GGC	ATC	TAC	AGG	TTT	GTG	ACT		1536
5357	Arg	Gly	Arg	Thr	Gly	Arg	Gly	Arg	Arg	Gly	Ile	Tyr	Arg	Phe	Val	Thr		
5358				500					505					510				
5359																		
5360	CCG	GGA	GAA	CGG	CCC	TCG	GGC	ATG	TTC	GAT	TCC	TCG	GTC	CTG	TGT	GAG		1584
5361	Pro	Gly	Glu	Arg	Pro	Ser	Gly	Met	Phe	Asp	Ser	Ser	Val	Leu	Cys	Glu		
5362			515					520					525					
5363																		
5364	TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	CTC	ACC	CCC	GCC	GAG	ACC		1632
5365	Cys	Tyr	.Asp	Ala	Gly	Cys	Ala	Trp	Tyr	Glu	Leu	Thr	Pro	Ala	Glu	Thr		
5366		530					535					540						
5367																		
5368					CGG													1680
5369		Val	Arg	Leu	Arg		Tyr	Leu	Asn	Thr		Gly	Leu	Pro	Val	_		
5370	545					550					555					560		
5371																	_	
5372					GAG													1728
5373	GIn	Asp	His	Leu	Glu	Phe	Trp	GLu	Ser		Phe	Thr	GTĀ	Leu		His		
5374					565					570					<b>57</b> 5			
5375		~~~	~~~	~~~														
5376					TTC													1776
5377	тте	Asp	АТА		Phe	Leu	Ser	GIn		Lys	GIN	АТа	GTÀ		Asn	Phe		
5378				580					585					590				
5379	aaa	m > a	ama	am 1	<b>aa</b> .	m	<i>~</i>	~~~		ama	maa	~~~		aam	~1~	~~~		
5380					GCA												•	1824
5381	Pro	Tyr		vaı	Ala	Tyr	GIN		Thr	vaı	cys	Ата		Ата	GIN	АТА		
5382			595					600					605					
5383	aas	aam	aas	ma s	maa	C) A ITT	<b>a</b> 2 2	ъ ша	шаа	330	mam	ama	2012	999	ama			1072
5384 5385					TGG												-	1872
	PIO		PIO	ser	Trp	ASP		мес	тгр	гÀг	cys		тте	Arg	Leu	ràs		
5386 5387		610					615					620						
5388	CCT	NCC.	CTC.	מאמ	aca	CCA	אמא	aaa	TITE C	CTC	ma.c	N.C.C	CTC	CCA	aca	GT/C		1920
5389					GGG												•	1740
5399	625	1111	пец	UTS	Gly	630	TITE	LIO	ьeu	ьец	635	Arg	ьeu	GTÅ	wTd	640		
5390	023					030					033					0 4 0		
5391	מאם	ልአጥ	GAG.	GTC	ACC	כיייכ	אממ	CAC	ccc	א תייא	A C C	<b>7 7 7</b>	ጥአሮ	አጥሮ	አምሮ	CCA		1968
5392					Thr												-	- / 0 0
5575	OTII	voil	Jiu	v a I	TILL	n-cu	TIIL	1112	FIU	TTG	TILL	n y s	r A r	TT6	MC C	A.T.O		

	5394					645					650				I	<i>PUT</i> 655		S30	)248.ra	W
	5395																			
	5396								GTC		ACŢ								19	98
	5397	Cys	Met	Ser		Asp	Leu	Glu	Val		-//									
	5398				660					665		(2)	INFO	RMAT:	ON I	FOR	SEQ	ID	NO:10	5:
	5399																			
	5400		(i	-					ISTI											
	5401								base		rs									
	5402			(1	B) T	YPE:	nuc.	leic	aci	3										
	5403								sing	gle										
	5404			( )	D) T	OPOL	OGY:	lin	ear											
	5405																			
	5406		(ii	) MO	LECU	LE T	YPE:	CDN	A											
	5407																			
	5408																			
	5409																			
	5410		(ix	) FE	ATUR	E:														
	5411		•	į (i	A) N	AME/I	KEY:	CDS												
	5412				-			1	1995											
	5413			•	•															
	5414																			
>	5415		(xi	) SE	OUEN	CE DI	ESCR:	IPTI	ON:	SEO I	D N	0:10	5:							
	5416		•							~										
	5417	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG			48
	5418												Ser							
	5419	1	_			5					10			3		15				
	5420	_				•														
	5421	CGC	GGC	AGC	САТ	ΔТС	GGT	ጥርጥ	СТТ	СТТ	Δጥጥ	Gum	GGT	ΔGΔ	ΔΨΨ	ΔΨΨ	тπΔ			96
	5422												Gly							, ,
	5423	ALG	GLY	Der	20	Mec	GLY	Jei	491	25	116	val	GLY	Arg	30	116	Бец			
	5424				20					23					30					
	5425	TO TO	COT	а ст	COM	A CITT	N TO C	N.C.C	aaa	ma c	maa.	CAA	CAG	N.C.C	aaa	aca	CITE A		1	44
	5425																		_	44
		per	GLY		GLY	ser	тте	THE		Tyr	ser	GIN	Gln		Arg	GTÅ	ьeu			
	5427			35					40					45						
	5428	amm	a a m	maa					~~~							~~~				
	5429												GAC						1	92
	5430	ьеи	_	cys	ьys	ьys	rnr		ьeu	Tnr	GTÀ	arg	Asp	гÀг	ASN	GIN	val			
	5431		50					55					60							
	5432																		_	
	5433												CAA						2	40
	5434	_	СŢЙ	Glu	Val	Gln		Val	Ser	Thr	Ala		Gln	Ser	Phe	Leu				
	5435	65					70					75					80			
	5436																			
	5437												CAT						2	88
	5438	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	•		
	5439					85					90					95				
	5440																			
	5441	AAG	ACC	TTA	GCC	GGC	CCA	AAG	GGG	CCA	ATC	ACC	CAG	ATG	TAC	ACT	AAT	ı	3	36
	5442	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	ı		
	5443	-			100	_		-	-	105					110					
	5444																			
	5445	GTG	GAC	CAG	GAC	CTC	GTC	GGC	TGG	CAG	GCG	CCC	CCC	GGG	GCG	CGT	TCC	!	. з	84
	5446												Pro							
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5450 5451	Leu	130	Pro	Cys	Thr	Cys	_	ser	Ser	Asp	Leu		Leu	vaı	Thr	Arg	
5451		130					135					140					
5453	СУТ	CCT	GAC	GTC	λήτη	cca	ama	ccc	caa	CGG	aac	GAG	λCIT	NCC	aaa	) CC	480
5454										Arg							400
5455	145	n.i.u	p	741	110	150	*41	ALG	AL 9	ALG	155	rsp	Ser	ALG	GLy	160	
5456																	
5457	CTG	CTC	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	528
5458										Leu							
5459					165				-	170	•	•			175	•	
5460																	
5461	CCA	CTG	CTC	TGC	CCT	TCG	GGG	CAC	GCT	GTG	GGC	ATC	TTC	CGG	GCT	GCC	576
5462	Pro	Leu	Leu	Cys	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	
5463				180					185					190			
5464																	
5465										GTG							624
5466	Val	Cys		Arg	Gly	Val	Ala		Ala	Val	Asp	Phe		Pro	Val	Glu	
5467			195					200					205				
5468	maa	) ma	<b>~~</b>	3.CI	3 am		~~~	mam	~~~				~~~			<b></b>	670
5469 5470										GTC							672
5470 5471	ser	210	GIU	THE	Thr	мес	215	ser	Pro	Val	Pne		Asp	ASN	ser	ser	
5472		210					213					220					
5473	CCC	CCG	GCC	СПΣ	CCG	CAG	ጥሮል	արդու	CAA	GTG	מממ	מאת	СШУ	מאמ	CCT	מממ	720
5474										Val							720
5475	225					230	501		<b>U</b> I	*41	235	1115	шец	1115	ALG	240	
5476																	
5477	ACT	GGC	AGC	GGC	AAG	AGT	ACT	AAA	GTG	CCG	GCT	GCA	TAT	GCA	GCC	CAA	768
5478										Pro							
5479		_		_	245			-		250			_		255		
5480																	
5481										TCC							816
5482	Gly	Tyr	Lys	Val	Leu	Val	Leu	Asn	Pro	Ser	Val	Ala	Ala	Thr	Leu	Gly	
5483				260					265					270			•
5484																	
5485										GGT							864
5486	Pne	стА	_	Tyr	мет	ser	Lys		His	Gly	Ile	Asp		Asn	ITe	Arg	
5487 5488			275					280					285				
5489	y Citt	aaa	CITEA	» aa	3.00	a mm	NOO	202	000	GCC	aaa	ата	202	mad	mam	Maa	012
5490										Ala							912
5491	1111	290	Val	AL G	THE	TTG	295	THE	оту	HIG	LIO	300	IIII	TAT	26T	TIIL	
5492		270					2)3					300					
5493	TAT	GGC	AAG	ттт	СТТ	GCC	GAT	GGT	GGT	TGC	ፐርሞ	GGG	GGC	GCT	тат	GAC	960
5494										Cys							500
5495	305	1	-1-			310		1	1	-1-	315	1	1		- 1 -	320	
5496	•					•							•				
5497	ATC	ATA	ATA	TGT	GAT	GAG	TGC	CAT	TCA	ACT	GAC	TCG	ACT	ACA	ATC	TTG	1008
5498										Thr							
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DATE: 12/09/98 TIME: 16:06:53

INPUT SET: S30248.raw

### GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT Gly Ile Gly Thr Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC Val Val Leu Ala Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC Pro Asn Ile Glu Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe TAT GGC AAA GCC ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC Tyr Gly Lys Ala Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu ATT TTC TGT CAT TCC AAG AAG TGC GAC GAG CTC GCC GCA AAG CTG Ile Phe Cys His Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu TCA GGC CTC GGA ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTG Ser Gly Leu Gly Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val TCC GTC ATA CCA ACT ATC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT Ser Val Ile Pro Thr Ile Gly Asp Val Val Val Ala Thr Asp Ala CTG ATG ACG GGC TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC Leu Met Thr Gly Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn ACA TGT GTC ACC CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC Thr Cys Val Thr Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr ATT GAG ACG ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG Ile Glu Thr Thr Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT Arg Gly Arg Thr Gly Arg Gly Arg Gly Ile Tyr Arg Phe Val Thr

CCG GGA GAA CGG CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG

Pro Gly Glu Arg Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu

TGC TAT GAC GCG GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC

Cys Tyr Asp Ala Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr

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5605

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														IN	<i>IPUT</i>	SET:	S30248.raw
5553	TCG	GTT	AGG	TTG	CGG	GCC	TAC	CTG	AAC	ACA	CCA	GGG	TTG				1680
5554	Ser	Val	Arg	Leu	Arg	Ala	Tyr	Leu	Asn	Thr	Pro	Gly	Leu	Pro	Val	Cys	
5555	545					550					555					560	
5556																	•
5557	CAG	GAC	CAC	CTG	GAG	TTC	TGG	GAG	AGT	GTC	TTC	ACA	GGC	CTC	ACC	CAT	1728
5558	Gln	Asp	His	Leu	Glu	Phe	Trp	Glu	Ser	Val	Phe	Thr	Gly	Leu	Thr	His	
5559		,			565					570					575		
5560																	
5561	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	CAG	GCA	GGA	GAC	AAC	TTC	1776
5562	Ile	Asp	Ala	His	Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ala	Gly	Asp	Asn	Phe	
5563				580					585					590			
5564																	
5565		TAC															1824
5566	Pro	Tyr		Val	Ala	Tyr	Gln		Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala	
5567			595					600					605				
5568																	
5569		CCT															1872
5570	Pro	Pro	Pro	Ser	Trp	Asp		Met	Trp	Lys	Cys		Ile	Arg	Leu	Lys	
5571		610					615					620					
5572	~~~	12;													~~~	~~~	1000
5573		ACG															1920
5574		Thr	Leu	HIS	GTÀ		Thr	Pro	Leu	Leu	-	arg	Leu	GTĀ	АТА		
5575	625					630					635					640	
5576 5577	C 2 2	AAT	ana	ama	3.00	ama	3.00	ana	aaa	2012	3.00		ma a	» ma	» ma	aas	1968
5578		Asn															1960
5578 5579	GIII	ASII	GIU	vaı	645	ren	THI	птр	PIO	650	THE	гух	туг	тте	655	Ата	
5580													,				
5581	TGC	ATG	TCG	GCT	GAC	СТС	GAG	GTC	GTC	∆ כיים∕		La	<b>少</b> (	ردوس			1998
5582		Met								~~<	_ /		λ				2,7,0
5583	-1-			660					665		(2) ]	INFO	кмат:	ON I	FOR S	SEO I	D NO:106:
5584											. – , –						
5585		(i)	SE	QUEN	CE CI	IARAC	TER	STIC	cs:								
5586		•	(1	A) LI	ENGTI	f: 19	98 k	oase	pair	s							
5587					YPE:				_								
5588			((	2) S	<b>TRANI</b>	DEDNE	ESS:	sing	gle						•		
5589			( I	D) T(	OPOLO	GY:	line	ear	-								
5590																	
5591		(ii)	MOI	LECUI	LE TY	PE:	CDNA	A.									
5592																	
5593																	
5594																	
5595		(ix)	FE!														
5596					AME/I												
5597			( I	3) L(	CAT:	ON:	1	1995		,							
5598																	
5599												_					
5599 <b>5600</b>		(xi)	SEÇ	QUENC	CE DI	escri	PTI	)N: S	SEQ 1	D NO	):106	5:					
5599 <b>5600</b> 5601	1 m c								_				-		am.	900	
5599 <b>5600</b> 5601 5602		GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC					48
5599 <b>5600</b> 5601			AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC					48

														7.	יוניו ונמו.	CET.	C20249
F.C.O.C	000	000	100	0 h m	3 M/d	GGT	mam	amm	amm.	3 mm	amm	aam	101				S30248.raw
5606						Gly											96
5607	Arg	стй	261		мес	GTÄ	ser	vат		тте	vaı	GIŞ	Arg		тте	Leu	
5608				20					25					30			
5609	mam	~~m	3 am		3 am	1 ma	100	~~~	m > 0	maa	<b>~~</b>	a. a	100	000	~~~	OM N	144
5610						ATC											144
5611	ser	GTA		GTÄ	Ser	Ile	Thr		Tyr	ser	GIN	GIN		arg	GTA	Leu	
5612			35					40					45				
5613	~	~~-													~-~	~-~	
5614						ACT											192
5615	Leu	_	cys	тте	TTE	Thr		Leu	Thr	СТĀ	Arg		гàг	Asn	GIN	vaı	
5616		50					55					60					
5617	~~~	~~~	~ . ~	~~~	a. a	ama	~~~	maa		~~`			maa	mma	ama	~~~	0.40
5618						GTG											240
5619		GTA	GIU	vaı	GIN	Val	vaı	ser	Thr	АТа		GIN	ser	Pne	Leu		
5620	65					70					75					80	
5621		maa	ama		~~~	ama	mam	maa		amm	m. a	a		aam	~~~	max	000
5622						GTG											288
5623	Thr	cys	vaı	Asn	_	Val	cys	Trp	Thr		туr	HIS	GTA	АТа	_	Ser	
5624					85					90					95		
5625			mm >	~~~	~~~	<b>aa</b> .		~~~	~~	1 ma	100	~~~	1 ma	m > 0	3 CM		226
5626						CCA											336
5627	rAz	Thr	Leu		GTÄ	Pro	ьуs	GTA		тте	Thr	GIN	мет	_	Thr	Asn	
5628				100					105					110			
5629	ama	a.a	a. a	a.a	ama	ama	-	maa	a.a		000	000	999	000	aam	maa	204
5630						GTC											384
5631	vaı	Asp		ASP	-ren	Val	GTÅ		GIN	АТа	Pro	Pro		ата	arg	Ser	
5632			115					120					125				
5633	mma	3.03	003	maa	3.00	mam.	000	100	max	a	amm	ma a	mma	ama	300	101	420
5634						TGT											432
5635	Leu		PIO	cys	THE	Cys	_	Ser	Ser	ASP	Leu	_	Leu	vaı	THE	Arg	
5636 5637		130					135					140					
5638	C) A III	aam	ava	ama	) mm	CCG	ama	000	000	aaa	aaa	as a	х ст	3 CC	aaa	3.00	480
5639																	400
5640	145	MIG	ASP	Val	116	Pro 150	νат	ALG	AIG	Arg	155	ASP	Ser	Arg	СТУ	160	
5641	143					130					133					100	
5642	CTC	כיייכ	ሞሮሮ	ccc	λαα	ССТ	CTC.	שממ	ሞአሮ	ጥጥር	λλα	aac	ጥርጥ	COT	COT	CCT	528
5643						Pro											320
5644	БСС	пса	Der	110	165	110	Val	Ser	- y -	170	пуз	OLY	561	AIG	175	O <sub>T</sub> y	
5645					103					1,0					1,5		
5646	CCA	СТС	CTC	TGC	ממש	TCG	aaa	מאמ	CCT	gтg	GGC	ΔТС	ጥጥር	CGG	GCT	מככ	576
5647						Ser											370
5648				180		501	017		185	,,,	0-1			190	*****	****	
5649									100								
5650	GΤA	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	дта	GAC	ጥጥጥ	GТG	CCC	СΤΣ	GAG	624
5651						Val											024
5652		-,5	195	9	~-1			200			P		205			~	
5653			_,,														
5654	TCC	AТG	GAA	АСТ	АСТ	ATG	CGG	ጥርጥ	CCG	GTC	ጥምሮ	ACG	GAC	AAC	TCA	TCC	672
5655						Met											J . Z
5656		210					215	~~1				220			~~~	~~_	
5657							-10										
5658	CCC	CCG	GCC	GTA	CCG	CAG	TCA	TTT	CAA	GTG	GCC	CAC	CTA	CAC	GCT	CCC	720

														73	1 <b>3 3 1</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	C TOM	620240
	_	_			_		_	_,				•	_				S30248.raw
5659		Pro	АТа	val	Pro		Ser	Phe	GIN	val		His	Leu	HIS	АТа		
5660	225					230					235					240	
5661	s am			~~~						~~~		~~~		<b>aa</b> .	~~~	<i>a</i>	7.0
5662					AAG												768
5663	Thr	ста	ser	GTA	Lys	ser	Thr	гÀг	val		Ата	АТа	Tyr	АТа		GIN	
5664					245					250					255		
5665																	
5666					CTC												816
5667	СТĀ	Tyr	Lys		Leu	Val	Leu	Asn		Ser	Val	Ala	Ala		Leu	GTA	
5668				260					265					270			
5669																	
5670					ATG												864
5671	Pne	СТÄ		Tyr	Met	Ser	rys		His	GTĀ	ITE	Asp		Asn	тте	Arg	
5672			275					280					285				
5673																	
5674					ACC												912
5675	Thr	_	vaı	Arg	Thr	ITe		Thr	GTÀ	Ala	Pro		Thr	Tyr	Ser	Thr	
5676		290					295					300					
5677		~~~					~~~							~~~			252
5678					CTT												960
5679	_	ста	Lys	Pne	Leu		ASP	GTÀ	GTĀ	cys		СТА	СТÄ	Ата	туг	-	
5680	305					310					315					320	
5681	1 ma	3073	3 177 3	mam	a.m	a.a	maa	~~	max		a. a	maa	. am		1 ma	mma	1000
5682					GAT												1008
5683	ше	тте	тте	cys	Asp	GIU	cys	HIS	ser		ASP	ser	Thr	Thr		Leu	
5684					325					330					335		
5685	000	N IDICI	000	202	ama	ama	a 2 a	<b>733</b>	000	a 2 a	3.00	aam	003	000	000	amm	1056
5686					GTC												1056
5687	сту	тте	GTÅ		Val	Leu	ASP	GIN		GIU	Thr	ATS	GTĀ		Arg	Leu	
5688 5689				340					345					350			
5690	ama	ama	ama	000	ACC	aam	3.00	аат	000	003	шаа	ama	300	ama	003	ara	1104
5691					Thr												1104
5692	Val	vaı	355	нта	1111	Ата	1111	360	PIO	GLY	ser	Val	365	vaı	PIO	nis	
5693			333					300					363				
5694	CCA	ልልሮ	ልሞሮ	GAG	GAG	GTG.	acc	CTG	ጥርጥ	አአጥ	λcm	GGA	GAG	አጥሮ	ccc	ጥጥር	1152
5695					Glu												1132
5696	110	370	110	014	GIG	V 44 1	375	Бец	Der	H211	1111	380	GIU	116	110	1 116	
5697		3,0					3,3					300					
5698	ጥልጥ	GGC	ΔΔΔ	GCC	ATC	מממ	א חיחי	GAA	acc	ልጥሮ	AGG	aaa	GGA	ÀGG	САТ	כיייכ	1200
5699					Ile												1200
5700	385	<b></b>	2,5		110	390	110	014	niu		395	OT 3	013	n. y		400	
5701	-					550					5,5					200	
5702	АТТ	ттс	тст	САТ	TCC	AAG	DAG	ΔAG	TGC	GAC	GAG	СТС	GCC	GCA	AAG	СТС	1248
5703					Ser												1240
5704			-72		405	-1-	-,-	-,-	0,10	410		200			415		
5705																	
5706	TCA	GGC	CTC	GGA	ATC	AAC	GCT	GTG	GCG	ТАТ	TAC	CGG	GGG	CTC	GAT	GTG	1296
5707					Ile												1270
5708		1		420					425	- , -	- 1 -	9	1	430			
5709																	
5710	TCC	GTC	ATA	CCA	ACT	ATC	GGA	GAC	GTC	GTT	GTC	GTG	GCA	ACA	GAC	GCT	1344
5711					Thr												
_		. –	-	-			-1										

														IN	<b>VPUT</b>	SET:	S30248	.raw
5712			435					440					445					
5713																		
5714	CTG	ATG	ACG	GGC	TAT	ACG	GGC	GAC	TTT	GAC	TCA	GTG	ATC	GAC	TGT	AAC		1392
5715	Leu	Met	Thr	Gly	Tyr	Thr	Gly	Asp	Phe	Asp	Ser	Val	Ile	Asp	Cys	Asn		
5716		450					455					460						
5717																		
5718	ACA	TGT	GTC	ACC	CAG	ACA	GTC	GAC	TTC	AGC	TTG	GAT	CCC	ACC	TTC	ACC		1440
5719	Thr	Cys	Val	Thr	Gln	Thr	Val	Asp	Phe	Ser	Leu	Asp	Pro	Thr	Phe	Thr		
5720	465					470					475	-				480		
5721																		
5722	ATT	GAG	ACG	ACG	ACC	GTG	CCT	CAA	GAC	GCA	GTG	TCG	CGC	TCG	CAG	CGG		1488
5723	Ile	Glu	Thr	Thr	Thr	Val	Pro	Gln	Asp	Ala	Val	Ser	Arg	Ser	Gln	Arg		
5724					485				_	490			_		495	_		
5725																		
5726	CGG	GGT	AGG	ACT	GGC	AGG	GGT	AGG	AGA	GGC	ATC	TAC	AGG	TTT	GTG	ACT		1536
5727	Arg	Gly	Arg	Thr	Gly	Arg	Gly	Arg	Arg	Gly	Ile	Tyr	Arg	Phe	Val	Thr		
5728	_	-	_	500	_	_	-	_	505	-		-		510				
5729																		
5730	CCG	GGA	GAA	CGG	CCC	TCG	GGC	ATG	TTC	GAT	TCC	TCG	GTC	CTG	TGT	GAG		1584
5731	Pro	Gly	Glu	Arq	Pro	Ser	Gly	Met	Phe	Asp	Ser	Ser	Val	Leu	Cys	Glu		
5732		•	515					520		-			525		•			
5733																		
5734	TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	CTC	ACC	CCC	GCC	GAG	ACC		1632
5735	Cvs	Tyr	Asp	Ala	Gly	Cvs	Ala	Trp	Tvr	Glu	Leu	Thr	Pro	Ala	Glu	Thr		
5736	-	530	_		-	-	535	-	-			540						
5737				,														
5738	TCG	GTT	AGG	TTG	CGG	GCC	TAC	CTG	AAC	ACA	CCA	GGG	TTG	CCC	GTT	TGC		1680
5739					Arg													
5740	545		- 3		<b>J</b>	550					555					560		
5741						-										-		
5742	CAG	GAC	CAC	CTG	GAG	TTC	TGG	GAG	AGT	GTC	TTC	ACA	GGC	CTC	ACC	CAT		1728
5743					Glu													
5744		•			565		-			570					575			
5745																		
5746	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	CAG	GCA	GGA	GAC	AAC	TTC		1776
5747					Phe													
5748		-		580					585				2	590				
5749																		
5750	CCC	TAC	CTG	GTA	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC		1824
5751					Ala													
5752		- 2	595			- 4 -		600			-1-		605					
5753																		
5754	CCA	CCT	CCA	TCA	TGG	GAT	CAA	ATG	TGG	AAG	TGT	СТС	АТА	CGG	CTG	AAA		1872
5755					Trp													
5756		610				<b>P</b>	615			-1-	- ] -	620		3		-1-		
5757												020						
5758	ССТ	ACG	CTG	CAC	GGG	CCA	ACA	CCC	TTG	СТС	TAC	AGG	СТС	GGA	GCC	GTC		1920
5759					Gly													
5760	625				1	630				u	635	9	Leu	- Y		640		
5761						550					555					~ r v		
5762	מאים	ΔΔͲ	GAG	GTC	ACC	CTC	ΔCC	CAC	מממ	ΔΨΔ	ACC	מ מ מ	ጥልሮ	ΔͲሮ	ΔΨС	GCA		1968
5763					Thr													1,00
5764	CIII	WO11	<del>Q</del> <u>L</u> u	٧ат	645	Heu	****	****	110	650	1111	nys	TAT	TTE	655	vta		
5,04					043					550					J J J			

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# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:06:57

INPUT SET: S30248.raw

5365														<b>I</b> I	VPUI	SEI:	550246.raw
5765 5766	<b>ፕ</b> ሮሮ	ΔТС	ሞሮር	сст	GAC	CTG	GAG	ርሞር	ርጥሮ	ልሮሞ							1998
5767							Glu			"[/							
5768	Cys	мес	Ser	660	ASP	Leu	GIU	Val	665		í21 -	TNEO	OMATI.	TON 1	EVB .	SEO 1	ID NO:107:
5769				800					883	,	(2) -	LMEOI	KMM I	LON	COR	SEQ .	ID NO. IO /:
		/ -	. cm	NI IERAI	ים מו	13 D 3 /	ampo	ramta	10.								
5770		( Ι.	_	_			CTER										
5771				-			998 l		_	rs							
5772			•	•			leic										
5773							ESS:		ате								
5774			( 1	)) TC	DPOLO	JGY:	line	ear									
5775																	
5776		(11)	) MOI	FCOI	-E 1.7	(PE:	CDNA	Ą									
5777																	
5778					_												
5779		(ix)		ATURI													
5780			-	•	AME/I												
5781			( I	3) L(	DCAT]	CON:	1	1997									
5782					_								•				
5783		(ix)		ATURI													
5784			-		AME/I												
5785			(I	3) L(	CAT:	CON:	1	L995									
5786	المعاد المراجة																
5787	•											- <del></del>					
5788		(Xí)	SEÇ	QUEN(	CE DI	ESCR	[PTI	ON: S	SEQ 1	D N	):10	7:					
5789																	
5790																CCG	48
5791		GГĀ	Ser	Ser		His	His	His	His		Ser	Ser	Gly	Leu		Pro	
5792	1				. 5					10					15		
5793																	
5794																TTA	96
5795	Arg	Gly	Ser		Met	Gly	Ser	Val		Ile	Val	Gly	Arg		Ile	Leu	
5796				20					25					30			
5797																	
5798																CTA	144
5799	Ser	Gly		Gly	Ser	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	
5800			35					40					45				
5801																	
5802																GTC	192
5803	Leu	_	Cys	Lys	Ile	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	
5804		50					55					60					
5805																	
5806							GTT										240
5807		Gly	Glu	Val	Gln		Val	Ser	Thr	Ala		Gln	Ser	Phe	Leu		
5808	65					70					75				,	80	
5809																	
5810																TCA	288
5811	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	
5812					85					90					95		
5813																	
5814																AAT	336
5815	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	
5816				100					105					110			
5817																	

RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723 DATE: 12/09/98 TIME: 16:06:58

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												~~~					S30248.raw
5818						GTC											384
5819	Val	Asp		Asp	Leu	Val	Gly		Gln	Ala	Pro	Pro	_	Ala	Arg	Ser	
5820			115					120					125				
5821																	
5822	TTG	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	432
5823	Leu	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	
5824		130					135					140					
5825																	
5826	CAT	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	480
5827	His	Ala	Asp	Val	Ile	Pro	Val	Ara	Ara	Ara	Glv	Asp	Ser	Arg	Glv	Ser	
5828	145					150			5		155			- 3	-	160	
5829																	
5830	СТС	СТС	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	тст	GCT	GGT	GGT	528
5831						Pro											
5832					165			201	- ] -	170	2,5	,	201		175	0_7	
5833					105					1,0					1,5		
5834	CCA	CTC	CTC	ሞርሮ	CCT	TCG	aga	CAC	CCT	CTC	aaa	አሞሮ	ጥጥረ	ccc	COT	acc	576
5835						Ser											370
5836	PIO	Leu	Leu	_	PIO	Ser	GLY	птэ		Val	GIA	TTG	File		АТа	ATG	
				180					185					190			
5837	am.	таа		-	-	cmm.	000			ama	~~~		ama	999	am.	~~~	604
5838						GTT											624
5839	vaı	cys		Arg	GTA	Val	АТа	_	АТа	vaı	Asp	Pne		Pro	vaı	GIU	
5840			195					200					205				
5841																	
5842						ATG											672
5843	Ser		GLu	Thr	Thr	Met	_	Ser	Pro	Val	Phe		Asp	Asn	Ser	Ser	
5844		210					215					220					
5845																	
5846						CAG											720
5847		Pro	Ala	Val	Pro	Gln	Ser	Phe	Gln	Val	Ala	His	Leu	His	Ala		
5848	225					230					235					240	
5849																	
5850	ACT	GGC	AGC	GGC	AAG	AGT	ACT	AAA	GTG	CCG	GCT	GCA	TAT	GCA	GCC	CAA	768
5851	Thr	Gly	Ser	Gly	Lys	Ser	Thr	Lys	Val	Pro	Ala	Ala	Tyr	Ala	Ala	Gln	
5852					245					250					255		
5853																	
5854	GGG	TAC	AAG	GTG	CTC	GTC	CTC	AAT	CCG	TCC	GTT	GCC	GCT	ACC	TTA	GGG	816
5855	Gly	Tyr	Lys	Val	Leu	Val	Leu	Asn	Pro	Ser	Val	Ala	Ala	Thr	Leu	Gly	
5856				260					265					270			
5857																	
5858	TTT	GGG	GCG	TAT	ATG	TCT	AAG	GCA	CAC	GGT	ATT	GAC	CCC	AAC	ATC	AGA	864
5859	Phe	Gly	Ala	Tyr	Met	Ser	Lys	Ala	His	Gly	Ile	Asp	Pro	Asn	Ile	Arq	
5860		_	275	-			-	280		-		-	285			•	
5861																	
5862	ACT	GGG	GTA	AGG	ACC	ATT	ACC	ACA	GGC	GCC	CCC	GTC	ACA	TAC	TCT	ACC	912
5863						Ile											
5864		290		3			295		1			300		- <b>, -</b>			
5865																	
5866	тдт	GGC	AAG	արդու	Сфф	GCC	ТАБ	GGT	GGT	ጥርር	ጥርጥ	GGG	GGC	GCT	<b>ጥ</b> Δጥ	GAC	960
5867						Ala											200
5868	305	O L y	- 73	1 116	me u	310	rob	OT Y	O T Y	Cy is	315	O T Y	O T Y	744	- 1 -	320	
5869	203					J10					J 1 J					320	
5870	አመጣ	ת יח ק	א רוו א	ጥርጥ	ανm	GAG	TOO	C A m	תורו א	λCITT	GAG	TOO	л cm	አሮአ	አጥጣ	முரு	1008
3070	AIC	MIM	AIA	101	GAI	GAG	100	CAT	ICA	ACT	GAC	100	ACT	ACA	AIC	116	1000

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														78	ידיו זמו	CET.	\$20249 manu
-071	<b>T</b> 1 -	<b>T</b> 1.	<b>-</b> 1-	<b>a</b>	1	a3	a	***	<b>~</b>	m\	<b>3</b>	<b></b>	m\				S30248.raw
5871	тте	тте	тте	cys		GIU	cys	HIS	ser		Asp	ser	Thr	Thr		Leu	
5872					325					330					335		
5873	000	N TO C	000		ama	ama	a.a		000	~~	100	aam	003	000	aaa	Omm	1056
5874														GCG			1056
5875	GLY	тте	GTA		vaı	Leu	Asp	GIN		GIU	Thr	АТа	GTA	Ala	Arg	rea	
5876				340					345					350			
5877	ama.	ama	ama	000	300	aam		aam	000	003	maa	ama.		ama	aa.	asa.	1104
5878														GTG			1104
5879	vaı	vaı		АТА	Thr	АТА	Thr		Pro	GTA	ser	vат		Val	PIO	UIS	
5880			355					360					365				
5881	001		3.00	~~~	a. a	ama	~~~	ama	mam		3 am		~~~	» ma	000	mma	1150
5882														ATC			1152
5883	PIO		тте	GIU	.GLU	val		Leu	Ser	ASN	Thr		GIU	Ile	Pro	Pne	
5884		370					375					380					
5885	mam	000		999	3 000	<b>a</b> aa	3 mm	<b>a.</b> .	000	3 000	* 00	000	003	3.00	C A M	OTT C	1200
5886														AGG			1200
5887 5888	_	GTÅ	rys	АТА	тте		тте	GIU	ALG	тте	_	сту	GIY	Arg	птр	400	•
5889	385					390					395					400	
5890	a mm	mma	mam	C) A III	maa	880	220	220	maa	a a a	ana.	CITIC	000	GCA	220	oma.	1248
5891														_			1240
5892	тте	Pile	cys	птэ	405	гур	гуз	пÃр	cys	410	GIU	rea	мта	Ala	415	neu	
5893					403					410					413		
5894	тса	GGC	מיזיכי	CCA	ልሞሮ	אמכ	ССТ	CTC	aca	πаπ	ጥል <b>ሮ</b>	CGG	aga	CTC	СУТ	GTG	<b>(-1</b> 296
5895														Leu			2230
5896	Ser	GLY	Беа	420	116	ASII	ALG	Vai	425	ıyı	ı yı	Arg	GLY	430	лор	<b>74</b>	· ·
5897				120					123					100			
5898	TCC	GTC	ΔͲΔ	CCA	ΔСТ	ΔПС	GGA	GAC	GTC	GTT	GTC	стс	GCA	ACA	GAC	GCT	1344
5899														Thr			
5900	501		435				<b>-</b> 1	440				,	445				
5901			100										,				
5902	CTG	ATG	ACG	GGC	ТАТ	ACG	GGC	GAC	ттт	GAC	TCA	GTG	ATC	GAC	TGT	AAC	1392
5903														Asp			
5904		450		1	-1-		455					460			- 2		
5905																	
5906	ACA	TGT	GTC	ACC	CAG	ACA	GTC	GAC	TTC	AGC	TTG	GAT	CCC	ACC	TTC	ACC	1440
5907	Thr	Cys	Val	Thr	Gln	Thr	Val	Asp	Phe	Ser	Leu	Asp	Pro	Thr	Phe	Thr	
5908	465	-				470		•			475	•				480	
5909																	
5910	ATT	GAG	ACG	ACG	ACC	GTG	CCT	CAA	GAC	GCA	GTG	TCG	CGC	TCG	CAG	CGG	1488
5911	Ile	Glu	Thr	Thr	Thr	Val	Pro	Gln	Asp	Ala	Val	Ser	Arg	Ser	Gln	Arg	•
5912					485					490					495		
5913																	
5914	CGG	GGT	AGG	ACT	GGC	AGG	GGT	AGG	AGA	GGC	ATC	TAC	AGG	TTT	GTG	ACT	1536
5915	Arg	Gly	Arg	Thr	Gly	Arg	Gly	Arg	Arg	Gly	Ile	Tyr	Arg	Phe	Val	Thr	
5916				500					505					510			
5917																	
5918														CTG			1584
5919	Pro	Gly	Glu	Arg	Pro	Ser	Gly	Met	Phe	Asp	Ser	Ser	Val	Leu	Cys	Glu	
5920			515					520					525				
5921																	
5922														GCC			1632
5923	Cys	Tyr	Asp	Ala	Gly	Суs	Ala	Trp	Tyr	Glu	Leu	Thr	Pro	Ala	Glu	Thr	

DATE: 12/09/98 TIME: 16:06:59

48

														IN	<b>IPUT</b>	SET:	S30248.raw
5924		530					535					540			_		
5925																	
5926	TCG	GTT	AGG	TTG	CGG	GCC	TAC	CTG	AAC	ACA	CCA	GGG	TTG	CCC	GTT	TGC	1680
5927	Ser	Val	Arg	Leu	Arg	Ala	Tyr	Leu	Asn	Thr	Pro	Gly	Leu	Pro	Val	Cys	
5928	545		_		_	550	-				555	-				560	
5929																	
5930	CAG	GAC	CAC	CTG	GAG	TTC	TGG	GAG	AGT	GTC	TTC	ACA	GGC	CTC	ACC	CAT	1728
5931	Gln	Asp	His	Leu	Glu	Phe	Trp	Glu	Ser	Val	Phe	Thr	Gly	Leu	Thr	His	
5932		_			565		_			570			_		575		
5933																	
5934	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	CAG	GCA	GGA	GAC	AAC	TTC	1776
5935	Ile	Asp	Ala	His	Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ala	Gly	Asp	Asn	Phe	
5936				580					585					590			
5937																	
5938									ACG								1824
5939	Pro	Tyr	Leu	Val	Ala	Tyr	Gln	Ala	Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala	
5940			595					600					605				
5941																	
5942	CCA	CCT	CCA	TCA	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	1872
5943	Pro	Pro	Pro	Ser	Trp	Asp	Gln	Met	Trp	Lys	Cys	Leu	Ile	Arg	Leu	Lys	
5944		610					615					620					
5945																	
5946									TTG								1920
5947		Thr	Leu	His	Gly		Thr	Pro	Leu	Leu	_	Arg	Leu	Gly	Ala		
5948	625					630					635					640	
5949																	
5950									CCC								1968
5951	GIn	Asn	GLu	Val		Leu	Thr	His	Pro		Thr	Lys	Tyr	Ile		Ala	
5952					645					650					655		
5953	maa	3 ma	maa		a.a	ama	~~~	ama	~~~								
5954									GTC	ACT							1998
5955 5956	cys	мес	ser		Asp	Leu	GIU	vaı	665	1/	· (2)	CMECI	3143 m3		70D (	7770	TD NO.100.
5957				660					000		(2)	LNEOI	KMAT'	LON	OR	DEQ .	ID NO:108:
5958		(1)	CE/	אושוזר	CE CI	JADAC	יתבים.	remt <i>e</i>	. pr								
5959		( _							pai:	re							
5960					YPE:				_								
5961			-	-	rani												
5962				-	OPOLO			-	J#6								
5963			\ '	, .	JI 011	,,,,		-41									
5964		(ii	) MOI	recni	LE TY	PE:	CDN	4									
5965		,	, -101					-									
5966																	
5967																	
5968																	
5969		(ix	) FE	ATURI	€:												
5970		,	•		AME/I	KEY:	CDS										
5971			-	-	CAT			1995					,				
5972			•	•													
5973																	
5974		(xi)	) SE(	QUEN	CE DE	ESCR	PTI	ON: S	SEQ 1	D NO	:108	3					
5975									-								
	1 ma	~~~	100		~~	~ >		~	~ ~ ~	~-~			~~~	~-~	~~~	~~~	4.0

5976 ATG GGC AGC CAT CAT CAT CAT CAT CAC AGC AGC GGC CTG GTG CCG

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

Series   S															IN	<b>PUT</b>	SET:	S30248.raw
1	5977	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu	Val	Pro	
Separation   Sep	5978		-			_								_				
Systa   Syst	5979																	
Sy812   Sy812   Sy813   Sy814   Sy81	5980	CGC	GGC	AGC	CAT	ATG	GGT	TCT	GTT	GTT	ATT	GTT	GGT	AGA	ATT	ATT	TTA	96
Sy812   Sy812   Sy813   Sy814   Sy81	5981	Arg	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arg	Ile	Ile	Leu	
See	5982	_	_				_						_	_				
See	5983																	
Separation		TCT	GGT	AGT	GGT	AGT	ATC	ACG	GCC	TAC	TCC	CAA	CAG	ACG	CGG	GGC	CTA	144
Separation	5985	Ser	Gly	Ser	Gly	Ser	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	
5988   CTT   GGT   TGC   ATC   AAG   ACT   AGC   CTT   ACA   GGC   CGG   GAC   AAG   AAC   CAG   GTC   CTC   CTG   CGG   CAG   CTC   CTG   CTG	5986		_		-				_	_					_	_		
See	5987																	
S990	5988	CTT	GGT	TGC	ATC	AAG	ACT	AGC	CTT	ACA	GGC	CGG	GAC	AAG	AAC	CAG	GTC	192
S991   S992   GAG GGA GGA GGT CAG GTG GTT TCC ACC GCA ACA CCA TCC TTC CTG GCG GLU Gly Gly Glu Val Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Ser Phe Ser Ser Ser Ser Phe Ser Ph	5989	Leu	Gly	Cys	Ile	Lys	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	
Same of the color of the colo	5990		50	_		_		55			_	_	60	-				
Sep	5991																	•
S994   65	5992	GAG	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	240
S994   65	5993	Glu	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	
Sep	5994		_															
The Cys   The Cys   San   San   Cly   Val   Cys   Cys   The   The   Val   Tyr   His   Cly   Ala   Cly   Ser   San   Sa	5995																	
5998         AG ACC TTA GCC GGC CCA AAG GGG CCA ATC ACC CAG ATG TAC ACT AAT GCC GGC CAG ATG Lys Thr Leu Ala GLy Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn 110         336           6001         Lys Thr Leu Ala GC GGC CCA AG GC CC CC GGG GCG CCC CC GGG GCG CGT TCC GGG GGG	5996	ACC	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	TAC	CAT	GGT	GCT	GGC	TCA	288
Second   S	5997	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	
6000	5998					85					90					95		
Color	5999																	
6002   100   105   105   110   105   110   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100   100	6000																	336
6004 GTG GAC CAG GAC CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC 384 6005 Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser 6006 115	6001	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	
6004 GTG GAC CAG GAC CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC 384 6005 Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser 1006 115					100					105					110			
Second   Color   Col																		
6006 6007 6008 TTG ACA CCA TGC ACC TGT GGC AGC TCA GAC CTT TAC TTG GTC ACG AGA 6009 Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg 6010 130 6011 6012 CAT GCT GAC GTC ATT CCG GTG CGC CGG CGG GGC GAC AGT AGG GGG AGC 6013 His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser 6014 145 6015 6016 CTG CTC TCC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT GCT GGT GGT 6017 Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly 6018 6019 6020 CCA CTG CTC TGC CCT TGC GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC 6021 Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala 6022 Fro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 6028																		384
6007 6008 TTG ACA CCA TGC ACC TGT GGC AGC TCA GAC CTT TAC TTG GTC ACG AGA 6009 Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg 6010 130 135 140 6011 6012 CAT GCT GAC GTC ATT CCG GTG CGC CGG CGG GGC GAC AGT AGG GGG AGC 6013 His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser 6014 145 150 150 155 160 6015 6016 CTG CTC TCC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT GCT GGT GGT 6017 Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly 6018 165 170 170 175 6020 CCA CTG CTC TGC CCT TCG GGG CAC GCT GTG GGC ATC TC CGG GCT GCC 6021 Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala 6022 180 180 185 185 190 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672		Val	Asp		Asp	Leu	Val	Gly	Trp	Gln	Ala	Pro	Pro	Gly	Ala	Arg	Ser	
TTG				115					120					125				
Column	-																	
6010																		. 432
6011 6012 CAT GCT GAC GTC ATT CCG GTG CGC CGG CGG GGC GAC AGT AGG GGG AGC 6013 His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser 6014 145		Leu		Pro	cys	Thr	cys		Ser	ser	Asp	Leu		Leu	val	Thr	Arg	
6012 CAT GCT GAC GTC ATT CCG GTG CGC CGG CGG GGC GAC AGT AGG GGG AGC 6013 His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser 6014 145			130					135					140		•			
6013 His Ala Asp Val Ile Pro Val Arg Arg Arg Gly Asp Ser Arg Gly Ser 6014 145		a	aam	~~~	ama		~~~	ama			~~~	~~~	a. a			~~~		400
145																		480
6015 6016 CTG CTC TCC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT GCT GGT GGT 6017 Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly 6018 6019 6020 CCA CTG CTC TGC CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC 6021 Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala 6022 180 185 190 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672			АТа	Asp	vaı	тте		vaı	arg	arg	Arg		ASP	ser	Arg	сту		
6016 CTG CTC TCC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT GCT GGT GGT 528 6017 Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly 6018		145					150					122					160	
6017 Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly 165		ama	ama	maa	000	3.00	aam	OITIO	maa	ma.a	mma	330	000	mam	аат	aam	COM	E20
6018																		520
6019 6020		Leu	rea	Ser	PIU		PIO	vaı	Ser	тут		гуз	GTÅ	Ser	АТа	_	GIĀ	
6020 CCA CTG CTC TGC CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC 576 6021 Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala 6022 180 185 190 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672						103					170					1/3		
6021 Pro Leu Leu Cys Pro Ser Gly His Ala Val Gly Tle Phe Arg Ala Ala 6022 180 185 190 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672		CCA	מיזימ	CTC	ጥርር	COT	<b>שרכ</b> ם	aaa	CAC	CCT	CTC	aaa	አምሮ	th.th.Cι	ccc	COT	acc	576
6022 180 185 190 6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672																		370
6023 6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672		FIU	nea	neu	_	110	Der	GLY	1112		Val	GIY	11G	FIIG	_	лла	A.T.a	
6024 GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG 6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672					100					100					100			
6025 Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu 6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672		GTA	ጥሮር	ACC	CGG	GGG	GTT	GCG	ΔAG	GCG	GTG	GAC	արար	GTG	CCC	СШΣ	GAG	624
6026 195 200 205 6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672																		024
6027 6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672		7.4.1	-10		9	1			_			P				T		
6028 TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC 672				- / 0					200					200				
		TCC	ATG	GAA	ACT	ACT	ATG	CGG	тст	CCG	GTC	TTC	ACG	GAC	AAC	TCA	TCC	672
																		- · · <del>-</del>

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

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6030 6031		210					215					220					
6031	ccc	CCG	GCC	GTA	CCG	CAG	TCA	ттт	CAA	GTG	GCC	CAC	СТА	CAC	GCT	ccc	720
6033					Pro												, 20
6034	225					230					235					240	
6035																	
6036	ACT	GGC	AGC	GGC	AAG	AGT	ACT	AAA	GTG	CCG	GCT	GCA	TAT	GCA	GCC	CAA	768
6037	Thr	Gly	Ser	Gly	Lys	Ser	Thr	Lys	Val	Pro	Ala	Ala	Tyr	Ala	Ala	Gln	
6038					245					250					255		
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6040	_				CTC												816
6041	Gly	Tyr	Lys		Leu	Val	Leu	Asn		Ser	Val	Ala	Ala		Leu	Gly	
6042				260					265					270			
6043	mmm	000	-	m . m	3 M.C	mam		~~	a.a	a a m					. ma		244
6044 6045					ATG												864
6045	FILE	GTÅ	275	ıyı	Met	Ser	гÀг	280	птѕ	GIY	тте	ASP	285	ASII	тте	Arg	
6047			213					200					203				
6048	ACT	GGG	GTA	AGG	ACC	ΑͲͲ	ACC	ACA	GGC	GCC	CCC	GTC	ACA	ТΔС	тст	ACC	912
6049					Thr												712
6050		290		5			295		1			300		-1-			
6051																	
6052	TAT	GGC	AAG	TTT	CTT	GCC	GAT	GGT	GGT	TGC	TCT	GGG	GGC	GCT	TAT	GAC	960
6053	Tyr	Gly	Lys	Phe	Leu	Ala	Asp	Gly	Gly	Cys	Ser	Gly	Gly	Ala	Tyr	Asp	
6054	305					310					<b>3</b> 15					320	
6055																	
6056					GAT												1008
6057	Ile	Ile	Ile	Cys	Asp	Glu	Cys	His	Ser		Asp	Ser	Thr	Thr		Leu	
6058					325					330					335		
6059 6060	aaa	a ma	aaa	303	ama	аша	a.a	<b>a.</b> .	999	a.a	3.00	aam	<b>aa</b> .	~~~	~~~	amm	1056
6061					GTC Val												1056
6062	СТУ	116	GLY	340	val	Leu	ASP	GIII	345	GIU	1111	АТА	СТУ	350	Arg	rea	
6063				340					343					330			,
6064	GTC	GTG	CTC	GCC	ACC	GCT	ACG	CCT	CCG	GGA	TCG	GTC	ACC	GTG	CCA	CAC	1104
6065					Thr												
6066			355					360		•			365				
6067																	
6068					GAG												1152
6069	Pro		Ile	Glu	Glu	Val		Leu	Ser	Asn	Thr	_	Glu	Ile	Pro	Phe	
6070		370					375				,	380					
6071	m a m	~~~		~~~		~~~											
6072					ATC												1200
6073 6074	79r 385	стА	гÀ2	нта	Ile	9ro 390	тте	GIU	ата	тте	_	стλ	стλ	arg	HIS		
6075	303					370					395					400	
6075	ልጥጥ	ጥጥሮ	ጥር፣ጥ	СУП	TCC	ΔΔα	ΔΔα	λλα	ጥርር	GVG	GAG	כייים	GCC	GC X	ልልወ	ርጥር	1248
6077					Ser												1240
6078			-1-		405	~, 5	1	-10	- J - D	410	JIU		AIG	A4U	415	a.cu	
6079																	
6080	TCA	GGC	CTC	GGA	ATC	AAC	GCT	GTG	GCG	TAT	TAC	CGG	GGG	CTC	GAT	GTG	1296
6081					Ile												
6082		-		420					425	-	=,	-	-	430	-		

INPUT	SET:	S30248	.raw

														IN	PUT	SET: S30248	8.raw
6083																~~=	
6084									GTC								1344
6085	Ser	vaı		Pro	Thr	ITe	СТÄ		Val	vaı	va⊥	val		'l'nr	Asp	Ala	
6086			435					440					445				
6087	ama			~~~			~~~	a. a		~ ~ ~	ma.	ama		~ ~ ~	mam		1 200
6088									TTT								1392
6089	Leu		Thr	GTÀ	Tyr	Thr	_	Asp	Phe	Asp	Ser		тте	Asp	cys	ASN	
6090		450					455					460					
6091	101	mam	ama	100	010	303	ama	a.a	mma	100	mma	<b></b>	aaa	100	mma	200	1440
6092									TTC								1440
6093 6094	465	cys	vaı	THE	GIN	470	vaı	Asp	Phe	Ser		Asp	PIO	THE	Pne	480	
6095	403					4/0					475					400	
6096	λmm	GNG	N C C	N.C.C	NCC.	GTIG.	CCT	CAA	GAC	CCA	GTG.	TOO	ccc	THCC!	CAG	ccc	1488
6097									Asp								1400
6098	TTE	GLU	1111	1111	485	val	PIO	GIII	АБР	490	Val	Ser	Arg	Ser	495	AIG	
6099					403					470					4))		
6100	ccc	сст	AGG	аст	aac	ACC	сст	ACC	AGA	aac	ልጥሮ	ጥል <b>ሮ</b>	ACC	արար	стс	δCͲ	1536
6101									Arg								1000
6102	nr 9	OL y	Arg	500	O <sub>T</sub> y	A. G	GLY	A. 9	505	OT y	110	- y	Arg	510	<b>7</b> 41		
6103	•			500										010			
6104	CCG	GGA	GAA	CGG	CCC	TCG	GGC	ATG	TTC	GAT	TCC	TCG	GTC	CTG	TGT	GAG	1584
6105									Phe								
6106		1	515	5				520					525		-7-		
6107																	
6108	TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	CTC	ACC	CCC	GCC	GAG	ACC	1632
6109									Tyr								
6110	-	530	-		-	-	535	•	•			540					
6111																	
6112	TCG	GTT	AGG	TTG	CGG	GCC	TAC	CTG	AAC	ACA	CCA	GGG	TTG	CCC	GTT	TGC	1680
6113	Ser	Val	Arg	Leu	Arg	Ala	Tyr	Leu	Asn	Thr	Pro	Gly	Leu	Pro	Val	Cys	
6114	545					550					555					560	
6115																	
6116	CAG	GAC	CAC	CTG	GAG	TTC	TGG	GAG	AGT	GTC	TTC	ACA	GGC	CTC	ACC	CAT	1728
6117	Gln	Asp	His	Leu	Glu	Phe	Trp	Glu	Ser	Val	Phe	Thr	Gly	Leu	Thr	His	
6118					565					570					575		
6119																	
6120									ACC								1776
6121	Ile	Asp	Ala		Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ala	Gly		Asn	Phe	
6122				580					585					590			
6123																	
6124									ACG								1824
6125	Pro	Tyr		Val	Ala	Tyr	GIn		Thr	Val	Cys	Ala	_	Ala	GIN	Ala	
6126			595					600					605				
6127		~~-		me:	me	<b></b>			<b></b>						~~		1070
6128									TGG								1872
6129	PIO		PIO	ser	тгр	Asp		мет	Trp	ьys	cys		тте	AIG	ьeu	гуя	
6130		610					615					620					
6131	COM	N CC	OTTO:	0.50	000	aa s	202	aaa	mma	ama	ma a	3.00	ama	003	000	CPC	1020
6132									TTG								1920
6133		TILL	ьeu	uis	стА		THE	Pro	Leu	ren	_	arg	Leu	стА	АТЗ		
6134	625					630					635					640	
6135																	

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# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														IN	<b>IPUT</b>	SET: S3	30248.raw
6136	CAA	AAT	GAG	GTC	ACC	CTC	ACC	CAC	CCC	АТА	ACC	AAA	TAC				1968
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6139																	
6140	TGC	ATG	TCG	GCT	GAC	CTG	GAG	GTC	GTC	ACT	_						1998
6141		Met															
6142				660					665		(2)	INFO	RMAT:	ION I	FOR S	SEO ID	NO:109:
6143											. – ,					<b>-</b>	
6144		(i	SEC	OUEN	CE CI	HARAG	TER	ISTI	cs:								
6145		, –			ENGTI					cs							
6146			-	-	YPE:				_								
6147			-	-	<b>TRAN</b> I												
6148					OPOL				•								
6149			,	•													
6150		(ii	MOI	LECU	LE T	YPE:	CDNA	Ą									
6151		•															
6152																	
6153		(ix	) FE	ATUR	€:												
6154		,			AME/I	KEY:	CDS										
6155			•	•	CAT:			1997									
6156			,	•													
6157		(ix	) FE	ATUR	Ε:												
6158		•			AME/I	KEY:	CDS				٠						
6159			(I	3) L(	CAT	ON:	1	1995									
6160			•	•													•
6161																	•
6162		(xi)	SE(	QUEN	CE DI	SCRI	PTI	ON: S	SEQ I	D NO	):109	9:					
6163		Ť							_								
6164	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG	48
6165	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu	Val	Pro	
6166	1				5					10			-		15		
6167																	
6168	CGC	GGC	AGC	CAT	ATG	GGT	TCT	GTT	GTT	ATT	GTT	GGT	AGA	ATT	ATT	TTA	96
6169	Arg	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arg	Ile	Ile	Leu	
6170				20					25					30			
6171																	
6172												CAG					144
6173	Ser	Gly	Ser	Gly	Ser	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	
6174			35					40					45				
6175																	
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6177	Leu	Gly	Cys	Lys	Lys	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	
6178		50					55					60					
6179																	
6180												CAA					240
6181	Glu	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	
6182	65					70					75					80	
6183																	
6184												CAT					288
6185	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	
6186					85					90			_		95		
6187																	
6188	AAG	ACC	TTA	GCC	GGC	CCA	AAG	GGG	CCA	ATC	ACC	CAG	ATG	TAC	ACT	AAT	336

DATE: 12/09/98 TIME: 16:07:02

#### INPUT SET: S30248.raw Lys Thr Leu Ala Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn GTG GAC CAG GAC CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC Val Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser TTG ACA CCA TGC ACC TGT GGC AGC TCA GAC CTT TAC TTG GTC ACG AGA Leu Thr Pro Cys Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg CAT GCT GAC GTC ATT CCG GTG CGC CGG CGG GGC GAC AGT AGG GGG AGC His Ala Asp Val Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser CTG CTC TCC CCC AGG CCT GTC TCC TAC TTG AAG GGC TCT GCT GGT GGT Leu Leu Ser Pro Arg Pro Val Ser Tyr Leu Lys Gly Ser Ala Gly Gly CCA CTG CTC TGC CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC Pro Leu Cys Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala GTA TGC ACC CGG GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG Val Cys Thr Arg Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu TCC ATG GAA ACT ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC Ser Met Glu Thr Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser CCC CCG GCC GTA CCG CAG TCA TTT CAA GTG GCC CAC CTA CAC GCT CCC Pro Pro Ala Val Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro ACT GGC AGC GGC AAG AGT ACT AAA GTG CCG GCT GCA TAT GCA GCC CAA Thr Gly Ser Gly Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln GGG TAC AAG GTG CTC GTC CTC AAT CCG TCC GTT GCC GCT ACC TTA GGG Gly Tyr Lys Val Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly TTT GGG GCG TAT ATG TCT AAG GCA CAC GGT ATT GAC CCC AAC ATC AGA Phe Gly Ala Tyr Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg ACT GGG GTA AGG ACC ATT ACC ACA GGC GCC CCC GTC ACA TAC TCT ACC Thr Gly Val Arg Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr TAT GGC AAG TTT CTT GCC GAT GGT GGT TGC TCT GGG GGC GCT TAT GAC Tyr Gly Lys Phe Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

6242	305					310					315			IN	PUT	<i>SET:</i> 320	S30248.	raw
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6244						GAG												1008
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6246					325					330					335			
6247																		
6248						CTG												1056
6249	Gly	Ile	Gly	Thr	Val	Leu	Asp	Gln	Ala	Glu	Thr	Ala	Gly	Ala	Arg	Leu		
6250				340					345					350				
6251																		
6252						GCT												1104
6253	Val	Val	Leu	Ala	Thr	Ala	Thr	Pro	Pro	Gly	Ser	Val	Thr	Val	Pro	His		
6254			355					360					365					
6255																		
6256	CCA	AAC	ATC	GAG	GAG	GTG	GCC	CTG	TCT	AAT	ACT	GGA	GAG	ATC	CCC	TTC		1152
6257	Pro	Asn	Ile	Glu	Glu	Val	Ala	Leu	Ser	Asn	Thr	Gly	Glu	Ile	Pro	Phe		
6258		370					375					380						
6259																		
6260	TAT	GGC	AAA	GCC	ATC	CCC	ATT	GAA	GCC	ATC	AGG	GGG	GGA	AGG	CAT	CTC		1200
6261	Tyr	Gly	Lys	Ala	Ile	Pro	Ile	Glu	Ala	Ile	Arg	Gly	Gly	Arq	His	Leu		
6262	385	•	•			390					395	•	-	_		400		
6263																		
6264	ATT	TTC	TGT	CAT	TCC	AAG	AAG	AAG	TGC	GAC	GAG	CTC	GCC	GCA	AAG	CTG		1248
6265						Lys												Service Control
6266			-		405	- 2	-1-	-2-	- 4	410					415			8 - 3
6267																		6.00
6268	TCA	GGC	CTC	GGA	ATC	AAC	GCT	GTG	GCG	TAT	TAC	CGG	GGG	CTC	GAT	GTG		1296
6269						Asn												
6270		-		420					425	-	-	,	-	430				
6271																		
6272	TCC	GTC	ATA	CCA	ACT	ATC	GGA	GAC	GTC	GTT	GTC	GTG	GCA	ACA	GAC	GCT		1344
6273						Ile												
6274			435				1	440					445					
6275																		
6276	CTG	ATG	ACG	GGC	TAT	ACG	GGC	GAC	ጥጥጥ	GAC	TCA	GTG	ATC	GAC	тст	AAC		1392
6277						Thr												
6278		450		1	- 1 -		455					460			-7.			
6279							100					100						
6280	ACA	TGT	GTC	ACC	CAG	ACA	GTC	GAC	ጥጥር	AGC	ጥጥር	СΔТ	aaa	ACC	ጥጥር	ACC		1440
6281						Thr												
6282	465	٠,٠	,		<b></b>	470	• • •	NO P		501	475	пор	110	****	1 110	480		
6283	100					7,0					4/5					400		
6284	Δጥጥ	GAG	ACG	ACG	NCC.	GTG	CCT	CAA	GAC	CCA	GTIG.	maa	ccc	TICC	CAC	ccc		1488
6285						Val												1400
6286	116	GIU	1111	1111	485	Val	PIO	GIII	ASP	490	Val	Ser	ALG	Ser	495	Arg		
6287					403					4 90					490			
6288	ccc	GCT.	אממ	λCm	aaa	X C C	aam	N.C.C	A CI A	aaa	y ma	mac	N CC	mmm	OTT C	N CITT		1 5 2 <i>6</i>
6289						AGG												1536
	Arg	σтλ	arg		стА	Arg	стλ	arg	_	стλ	тте	Tyr	arg		val	Tnr		
6290				500					505					510				
6291	~~~		a	~~~		m~~			me	a	me	<b></b>		-				
6292						TCG												1584
6293	Pro	стÀ		arg	Pro	Ser	стÀ		Phe	Asp	ser	ser		Leu	Cys	GLu		
6294			515					520					525					

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6347

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

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6296							GCT										163	12
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6298		530					535					540						
6299 6300	maa.	COUNT	3.00	mma	aaa	000	m » «	OTT C	2 2 4	202	aas	aaa	mma	aaa	amm	maa.	169	. ^
6300							TAC Tyr										168	, 0
6302	545	val	Arg	Leu	Arg	550	TYL	Leu	ASII	1111	555	сту	Leu	PLO	vaı	560		
6303	343					330			•		333					300		
6304	CAG	GAC	CAC	СТС	GAG	TTC	TGG	GAG	AGT	GTC	ምሞር	ACA	GGC	СТС	ACC	САТ	172	8.
6305							Trp											
6306					565					570			1		575			
6307																		
6308	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	CAG	GCA	GGA	GAC	AAC	TTC	177	6
6309	Ile	Asp	Ala	His	Phe	Leu	Ser	Gln	Thr	Lys	Gln	Ala	Gly	Asp	Asn	Phe		
6310		_		580					585	-			_	590				
6311																		
6312							CAA										182	4
6313	Pro	Tyr		Val	Ala	Tyr	Gln		Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala		
6314			595					600					605					
6315																		
6316							CAA										187	2
6317 6318	Pro		Pro	Ser	тгр	Asp	Gln	мет	Trp	гÀЗ	cys		тте	Arg	Leu	гÀг		
6319		610					615					620						
6320	ССТ	ΔCG	СТС	CAC	aaa	CCA	ACA	מממ	ጥጥር	CTC	ሞልሮ	λαα	CTG	GGA	acc	GTC.	192	, n
6321							Thr										192	.0
6322	625			****	017	630	****		200	пса	635	~- 9	200	01,	niu	640		
6323																010		
6324	CAA	AAT	GAG	GTC	ACC	CTC	ACC	CAC	CCC	ATA	ACC	AAA	TAC	ATC	ATG	GCA	196	8
6325							Thr											
6326					645					650					655			
6327																		
6328							GAG			ACT	/						199	8
6329	Cys	Met	Ser		Asp	Leu	Glu	Val										
6330				660					665	12	(2)	INFO	RMAT:	ION I	FOR S	SEQ I	D NO:110	) <b>:</b>
6331																		
6332		(1					CTERI											
<b>6333</b> 633 <b>4</b>							)16 k			S								
6335							leic ESS:											
6336							line		3TG									
6337			, , ,	, .	гоц		T1116	-aı										
6338		(ii	моі	ECUI	E TY	PE:	cDN/	4										
6339		,,	,					-										
6340																		
6341																		
6342																		
6343		(ix	) FE	ATURE	: :													
6344						ŒY:												
6345			( I	3) LC	CAT	ON:	12	2013										
6346																		

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															IN	<i>IPUT</i>	SET:	S30248.raw
>	6348		(xi)	) SE(	QUEN	CE DI	SCR:	[PTI	on: s	SEQ I	D N	):110	) <b>:</b>					
	6349																	
	6350	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG	48
	6351	Met	Gly	Ser	Ser	His	His	His	His	His	His	Ser	Ser	Gly	Leu	Val	Pro	
	6352	1				5					10			_		15		
	6353																	
	6354	CGC	GGC	AGC	CAT	ATG	GCT	TAC	TCT	CTG	ACT	ACG	GGT	TCT	GTT	GTT	ATT	96
	6355	Arg	Gly	Ser	His	Met	Ala	Tyr	Ser	Leu	Thr	Thr	Gly	Ser	Val	Val	Ile	
	6356	_	_		20			_		25			_		30			
	6357																	
	6358	GTT	GGT	AGA	ATT	ATT	TTA	TCT	GGT	AGT	GGT	AGT	ATC	ACG	GCC	TAC	TCC	144
	6359	Val	Gly	Arg	Ile	Ile	Leu	Ser	Gly	Ser	Gly	Ser	Ile	Thr	Ala	Tyr	Ser	
	6360			35					40		_			45				
	6361																	
	6362	CAA	CAG	ACG	CGG	GGC	CTA	CTT	GGT	TGC	ATC	ATC	ACT	AGC	CTT	ACA	GGC	192
	6363	Gln	Gln	Thr	Arg	Gly	Leu	Leu	Gly	Cys	Ile	Ile	Thr	Ser	Leu	Thr	Gly	
	6364		50					55					60					
	6365																	
	6366	CGG	GAC	AAG	AAC	CAG	GTC	GAG	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	240
	6367	Arg	Asp	Lys	Asn	Gln	Val	Glu	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	
	6368	65					70					75					80	•
	6369																	
	6370	ACA	CAA	TCC	TTC	CTG	GCG	ACC	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	288
	6371	Thr	Gln	Ser	Phe	Leu	Ala	Thr	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	
	6372					85					90					95		
	6373																	
	6374							AAG										336
	6375	Tyr	His	Gly	Ala	Gly	Ser	Lys	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	
	6376				100					105					110			
	6377																	
	6378							GTG										384
	6379	Thr	Gln		Tyr	Thr	Asn	Val	Asp	Gln	Asp	Leu	Val	Gly	Trp	Gln	Ala	
	6380			115			•		120					125				
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	6382							TTG										432
	6383	Pro		GTÀ	Ala	Arg	Ser	Leu	Thr	Pro	Cys	Thr	_	GLY	Ser	Ser	Asp	
	6384		130					135					140					
	6385																	
	6386							CAT										480
	6387		Tyr	Leu	vaı	Thr		His	АТа	Asp	vaı		Pro	val	Arg	arg		
	6388	145					150					155					160	
	6389	222	a.a	3 AM		~~~		ama	ama	maa	~~~		aam	ama	maa	m > 0	mma	F00
	6390							CTG										528
	6391	GTÄ	Asp	ser	Arg		ser	Leu	Leu	ser		arg	Pro	vaı	ser	_	Leu	
	6392					165					170					175		
	6393	224	aaa	mam	maa	aam	aam	aa.	ama	ama	maa	aam	maa	000	~~	aam	OP C	574
	6394							CCA										576
	6395	гÀЗ	стА	ser		GTÅ	стА	Pro	red		cys	Pro	ser	GΤÄ		ΑΤά	val	
	6396				180					185					190			
	6397	aaa	N MICH	mma	aaa	O O TT	000	оша	шаа	300	000	aaa	amm	aaa	224	aaa	OMG.	604
	6398							GTA										624
	6399	GTÀ	тте		arg	АТА	АТа	Val	_	THE	arg	стА	val		rÀs	ата	vaT	
	6400			195					200					205				

## RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:07:05

### INPUT SET: S30248.raw

														II	VPUT	SET: S.	30248.raw	
6401	~~~		ama	~~~	am.	a. a	maa		<i>a</i>		<b>.</b>			mam	~~~	ama	670	
6402										ACT							672	
6403	Asp		vaı	Pro	vaı	GIU		мет	GIU	Thr	Inr		Arg	ser	Pro	vaı		
6404		210					215					220						
6405	mma	N.C.C	CAC	220	шал	maa	aaa	aaa	aaa	OIT A	aaa	a a a	ma x	mmm	<b>CIA</b> A	CMC	720	
6406 6407										GTA							720	
6407	225	1111	АБР	ASII	Ser	230	PIO	PIO	мта	Val	235	GTH	Ser	Pile	GIII	240		
6409	223		•			230					233					240		
6410	acc	CAC	СПУ	CAC	CCT	כככ	እርጥ	aac	ACC	GGC	AAG	አርሞ	አረጥ	A A A	GTG.	CCG	768	
6411										Gly							,00	
6412	ALG	****		****	245		****	O <sub>T</sub>	DCI	250	טעם	501	****	درد	255	110		
6413					2.0					200					200			
6414	GCT	GCA	ТАТ	GCA	GCC	CAA	GGG	TAC	AAG	GTG	CTC	GTC	СТС	ААТ	CCG	TCC	816	
6415										Val								
6416			-1-	260			2	-1-	265					270				
6417																		
6418	GTT	GCC	GCT	ACC	TTA	GGG	TTT	GGG	GCG	TAT	ATG	TCT	AAG	GCA	CAC	GGT	864	
6419	Val	Ala	Ala	Thr	Leu	Gly	Phe	Gly	Ala	Tyr	Met	Ser	Lys	Ala	His	Gly		
6420			275			_		280		_			285			_		
6421										:								
6422	ATT	GAC	CCC	AAC	ATC	AGA	ACT	GGG	GTA	AGG	ACC	ATT	ACC	ACA	GGC	GCC	912	
6423	Ile	Asp	Pro	Asn	Ile	Arg	Thr	Gly	Val	Arg	Thr	Ile	Thr	Thr	Gly	Ala		
6424		290					295					300						
6425																		
6426										TTT							960	
6427		Val	Thr	Tyr	Ser		Tyr	Gly	Lys	Phe		Ala	Asp	Gly	Gly	_		
6428	305					310					315					320		
6429	mam	999	-	aam	m. m	a.a					a.m	a. a	<b></b>	~~~	ma.		1000	
6430										TGT							1008	
6431 6432	Ser	GIY	GIY	АТА	325	ASP	TIE	тте	TTE	Cys	Asp	GIU	cys	HIS		Thr		
6433					323					330					335			
6434	GAC	ጥሮር	λСΤ	aca	ልሞሮ	ጥጥር	aac	አጥሮ	aac	ACA	CTC	ርጥር	GAC	CAA	aca	GAG	1056	
6435										Thr							1030	
6436				340			<b>U</b> _1		345					350		014		
6437					•													
6438	ACG	GCT	GGA	GCG	CGG	CTT	GTC	GTG	CTC	GCC	ACC	GCT	ACG	CCT	CCG	GGA	1104	
6439	Thr	Ala	Gly	Ala	Arg	Leu	Val	Val	Leu	Ala	Thr	Ala	Thr	Pro	Pro	Gly		
6440			355		-			360					365			-		
6441																		
6442	TCG	GTC	ACC	GTG	CCA	CAC	CCA	AAC	ATC	GAG	GAG	GTG	GCC	CTG	TCT	AAT	1152	
6443	Ser	Val	Thr	Val	Pro	His	Pro	Asn	Ile	Glu	Glu	Val	Ala	Leu	Ser	Asn		
6444		370					375					380						
6445																		
6446										GCC							1200	
6447		Gly	Glu	Ile	Pro		Tyr	Gly	Lys	Ala		Pro	Ile	Glu	Ala			
6448	385					390					395					400		
6449	<b>.</b>	<b></b>																
6450										CAT							1248	
6451	arg	стĀ	СŢЙ	arg		Leu	TTE	Phe	Cys	His	ser	Lys	Lys	Lys		Asp		
6452					405					410					415			
6453																		

			•											73	ייניין אוניין	CET.	620240
<del>-</del> .																	S30248.raw
6454														GTG			1296
6455	GIU	Leu	Ата		гàг	Leu	ser	GTÀ		GTA	тте	Asn	ата	Val	Ата	Tyr	
6456				420					425					430			
6457																	
6458														GAC			1344
6459	Tyr	Arg	_	Leu	Asp	Val	Ser		Ile	Pro	Thr	Ile	_	Asp	Val	Val	
6460			435					440					445				
6461																	
6462			_											GAC			1392
6463	Val	Val	Ala	Thr	Asp	Ala		Met	Thr	Gly	Tyr	Thr	Gly	Asp	Phe	Asp	
6464		450					455					460					
6465																	
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6467	Ser	Val	Ile	Asp	Cys	Asn	Thr	Cys	Val	Thr	Gln	Thr	Val	Asp	Phe	Ser	
6468	465					470					475					480	
6469																	
6470	TTG	GAT	CCC	ACC	TTC	ACC	ATT	GAG	ACG	ACG	ACC	GTG	CCT	CAA	GAC	GCA	1488
6471	Leu	Asp	Pro	Thr	Phe	Thr	Ile	Glu	Thr	Thr	Thr	Val	Pro	Gln	Asp	Ala	
6472					485					490					495		
6473																	
6474	GTG	TCG	CGC	TCG	CAG	CGG	CGG	GGT	AGG	ACT	GGC	AGG	GGT	AGG	AGA	GGC	1536
6475	Val	Ser	Arg	Ser	Gln	Arg	Arg	Gly	Arg	Thr	Gly	Arg	Gly	Arg	Arg	Gly	
6476				500					505					510			
6477																	
6478	ATC	TAC	AGG	TTT	GTG	ACT	CCG	GGA	GAA	CGG	CCC	TCG	GGC	ATG	TTC	GAT	1584
6479	Ile	Tyr	Arg	Phe	Val	Thr	Pro	Gly	Glu	Arg	Pro	Ser	Gly	Met	Phe	Asp	
6480			515					520		_			525		٠.		
6481																	
6482	TCC	TCG	GTC	CTG	TGT	GAG	TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	1632
6483	Ser	Ser	Val	Leu	Cys	Glu	Cys	Tyr	Asp	Ala	Gly	Cys	Ala	Trp	Tyr	Glu	
6484		530			_		535	_	_		-	540		_	_		
6485																	
6486	CTC	ACC	CCC	GCC	GAG	ACC	TCG	GTT	AGG	TTG	CGG	GCC	TAC	CTG	AAC	ACA	1680
6487	Leu	Thr	Pro	Ala	Glu	Thr	Ser	Val	Arg	Leu	Arg	Ala	Tyr	Leu	Asn	Thr	
6488	545					550					555		•			560	
6489																	
6490	CCA	GGG	TTG	CCC	GTT	TGC	CAG	GAC	CAC	CTG	GAG	TTC	TGG	GAG	AGT	GTC	1728
6491														Glu			
6492		-			565	-		-		570			-		575		
6493																	
6494	TTC	ACA	GGC	CTC	ACC	CAT	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	1776
6495														Gln			
6496			_	580				-	585					590		-	
6497																	
6498	CAG	GCA	GGA	GAC	AAC	TTC	CCC	TAC	CTG	GTA	GCA	TAC	CAA	GCC	ACG	GTG	1824
6499														Ala			
6500			595	P				600				- 1 -	605				
6501																	
6502	TGC	GCC	AGG	GCT	CAG	GCC	CCA	ССТ	CCA	TCA	TGG	СΑТ	CAA	ATG	TGG	AAG	1872
6503														Met			10,2
6504	9,5	610	9				615			~~1	5	620	<b>-</b> 111			-,-	
6505							0.10					520					
6506	ጥርጥ	CTC	מידע	CGG	СПС	222	ССФ	ACG	СПС	CAC	aaa	רר א	ACA	CCC	ተጥር	ርሞር	1920
0000		010		555	010		001		010	OAC	-30	CCA	A-A		. 10	010	1720

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

															IN	PUT	SET:	S30248.raw	
	6507 6508	Cys 625	Leu	Ile	Arg	Leu	Lys 630	Pro	Thr	Leu	His	Gly 635	Pro	Thr					
	6509	023					030					033					040		
	6510	TAC	NOO	CTC	CCA	GCC	CTC.	CAA	አአጥ	GAG	CTC	אממ	CTC	A C C	CAC	ccc	אידיא	1968	
	6511					Ala												1700	
		ıyı	Arg	Leu	GIA		Vат	GIII	ASII	GIU		1111	Leu	1111	птэ	655	116		
	6512					645					650					000			
	6513			m. a	1 ma	1 ma	~~.	maa		maa	aam	a. a	ama	a.a	ama	ama		2012	./
	6514					ATG											•	2013 Ja	N
	6515	Thr	ьys	тyr		Met	Ата	cys	мет		АТА	Asp	Leu	GIU		vaı		7	سس
	6516				660					665					670				U
	6517																	201640	0.014
	6518	ACT																2016(2) INF	ORM
	6519																		•
	6520		(1)		_	CE CI												•	
>	6521					engti					s								
	6522			(1	B) TY	YPE:	nuc]	leic	acio	3									
	6523					<b>TRANI</b>				gle									
	6524			(1	D) T(	OPOL	OGY:	line	ear										•
	6525																		
	6526		(ii)	MOI	LECUI	LE T	YPE:	cDN/	A.										
	6527																		
	6528																		
	6529		(ix)	FE/	ATURI	€:													
	6530			(1	A) NA	AME/I	KEY:	CDS											
	6531			į.	B) LO	CAT:	ON:	1	2013										
	6532			•	•														
	6533																		
>	6534		(xi	SEC	OUEN	CE DI	SCR	[PTI	N: S	SEO I	D NO	):11	L:						
	6535		•							-									
	6536	ATG	GGC	AGC	AGC	CAT	CAT	CAT	CAT	CAT	CAC	AGC	AGC	GGC	CTG	GTG	CCG	48	
	6537					His													
	6538	1	•			5					10			-		15			
	6539					•													
	6540	CGC	GGC	AGC	CAT	ATG	GCT	TAC	тст	CTG	ACT	ACG	GGT	TCT	GTT	GTT	ATT	96	
	6541					Met													
	6542	9	1		20			- 1 -		25			1		30				
	6543																		
	6544	ርጥጥ	CCT	AGA	ΔΨΨ	ATT	מידיד	ጥርጥ	GGT	ΔGT	CCT	ΔСΤ	ΔΨΟ	ACG	GCC	TAC	TCC	144	
	6545					Ile													
	6546	Val	GLY	35	116	116	пеа	DCI	40	DCI	OLY	Der	116	45	AIG	- 7 -	501		
	6547			33					40					<b>±</b> 3					
	6548	CAA	CAC	A C C	aaa	GGC	CITE A	CITIES	CCT	TOO	N TTC	A m.c.	N CITT	N.C.C	C TP TP	A C A	ccc	192	
	6549																	132	
		GIN		THE	Arg	Gly	rea		сту	Cys	тте	тте		Ser	rea	1111	сту		
	6550		50					55					60						
	6551																<i>aa</i> .	2.4.2	
	6552					CAG												240	
	6553	_	Asp	ьys	Asn	Gln		GLU	GTÀ	GLU	val		val	vaı	ser	rnr			
	6554	65					70					75					80		
	6555													_					
	6556					CTG												288	
	6557	Thr	Gln	Ser	Phe	Leu	Ala	Thr	Cys	Val		Gly	Val	Cys	Trp		Val		
	6558					85					90					95			
	6559																		

														73	ידיו זמו	CET.	\$20249 man
6560	m. a	a.m	aam	00m	999	max		100	mm s	999	~~~						S30248.raw
6560														GGG			336
6561	тyr	His	GTÀ		GTÀ	ser	гÀг	Thr		АТА	GTA	Pro	гàг	Gly	Pro	тте	
6562				100					105					110			
6563																	
6564														TGG			384
6565	Thr	Gln	Met	Tyr	Thr	Asn	Val	Asp	Gln	Asp	Leu	Val	Gly	$\mathtt{Trp}$	GIn	Ala	
6566			115					120					125				
6567																	
6568	CCC	CCC	GGG	GCG	CGT	TCC	TTG	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	432
6569	Pro	Pro	Gly	Ala	Arg	Ser	Leu	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	
6570		130					135					140					
6571																	
6572	CTT	TAC	TTG	GTC	ACG	AGA	CAT	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	480
6573	Leu	Tyr	Leu	Val	Thr	Arg	His	Ala	Asp	Val	Ile	Pro	Val	Arg	Arg	Arg	
6574	145	-				150			_		155			_	_	160	
6575																	
6576	GGC	GAC	AGT	AGG	GGG	AGC	CTG	CTC	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	528
6577														Ser			
6578	1			5	165					170	3				175		
6579																	
6580	AAG	GGC	тст	GCT	GGT	GGT	CCA	CTG	CTC	TGC	ССТ	TCG	GGG	CAC	GCT	GTG	576
6581														His			
6582	Lys	013	DCI	180	017	01,	110	ВСС	185	<b>4</b>		501	0+1	190	11.2.0		
6583				100					103					170			
6584	GGC	አጥሮ	ጥጥር	caa	CCT	GCC	CTA	TCC	ACC	ccc	aaa	ርጥጥ	aca	AAG	aca	CTC	624
6585														Lys		-15	021
6586	GLY	116	195	Arg	AIG	AIG	Val	200		Arg	CLY	Val	205	Lyo	ALU	· · · ·	
6587			175					200					203				
6588	GAC	աատ	стс	CCC	CITE A	GAG	TOO	አጥር	GAA	A CUT	አረሞ	አጥር	caa	TCT	ממפ	GTC	672
6589														Ser			0,2
6590	пор	210	Vai	110	Val	GIG	215	Mec	014	****	****	220	A. g	<b>D</b> C1		· · · ·	
6591		210					213					220					
6592	ጥጥር	NCG.	GAC	אאמ	TCA	TCC	ccc	ccc	acc	СШV	cca	CAG	<b>ጥ</b> ር እ	TTT	CAA	стс	720
6593														Phe		_	, 20
6594	225	1111	ASP	ASII	Ser	230	PIO	PIU	Ата	Val	235	GIII	Ser	FIIC	GIII	240	
6595	225					230					233					240	
6596	000	asa	OIII N	asa	aam	000	3 CITT	000	200	aaa	220	N CIM	A CITE	AAA	ama.	cca	768
6597																	700
6598	АТА	птэ	Leu	птѕ		PLO	1111	СТУ	Ser	250	гур	Ser	1111	Lys	255	FIU	
6599					245					250					233		
	aam	aa.	mam	aas	000		999	mag	330	ama	ama	ama	ama	2 201	aaa	maa	816
6600														AAT			010
6601	Ата	Ата	Tyr		АТА	GIN	GTA	Tyr		var	Leu	vaı	Leu	Asn	PIO	Ser	
6602				260					265					270			
6603	amm	999	aam.	100	mm s	999	mmm	-	~~~		1 ma	mam		001	a.a	aam	964
6604														GCA			864
6605	vaı	ата		Tnr	Leu	GTÀ	rne	_	ата	Tyr	мет	ser	_	Ala	HIS	GTĀ	
6606			275					280					285				
6607						_									<b></b>		
6608														ACA			912
6609	Ile	_	Pro	Asn	Ile	Arg		Gly	Val	Arg	Thr		Thr	Thr	GTÀ	Ala	
6610		290					295					300					
6611												<b></b>					
6612	CCC	GTC	ACA	TAC	TCT	ACC	TAT	GGC	AAG	TTT	CTT	GCC	GAT	GGT	GGT	TGC	960

6613 Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe Leu Ala Asp Gly Gly Cys 6614 305 310 315 320 6615 6616 TCT GGG GGC GCT TAT GAC ATC ATA ATA TGT GAT GAG TGC CAT TCA ACT 6617 Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr 6618 325 330 335 6619 6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350 6623 6624 ACG GCT GGA GCG CGG CTT GTC GTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6630 370 375 380 6631	1008 1056 1104
6615 6616 TCT GGG GGC GCT TAT GAC ATC ATA ATA TGT GAT GAG TGC CAT TCA ACT 6617 Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr 6618 325 330 335 6619 6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350 6623 6624 ACG GCT GGA GCG CGG CTT GTC GTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375	1056
6616 TCT GGG GGC GCT TAT GAC ATC ATA ATA TGT GAT GAG TGC CAT TCA ACT 6617 Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr 6618 325 330 330 335 6619 6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350  6623 6624 ACG GCT GGA GCG CGG CTT GTC GTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	1056
6617 Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys Asp Glu Cys His Ser Thr 6618	1056
6618 325 330 335 6619 6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350 6623 6624 ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6619 6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350 6623 6624 ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6620 GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA GTC CTG GAC CAA GCG GAG 6621 Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu 6622 340 345 350 6623 6624 ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6621       Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr Val Leu Asp Gln Ala Glu         6622       340       345       350         6623       360       GCT GGA GCG CGG CTT GTC GTC GCC ACC GCT ACG CCT CCG GGA         6624       ACG GCT GGA GCG CGG CTT GTC GTC GCC ACC GCT ACG CCT CCG GGA         6625       Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly         6626       355       360       365         6627         6628       TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT         6629       Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn         6630       370	
6622 340 345 350  6623  6624 ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA  6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly  6626 355 360 365  6627  6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT  6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn  6630 370 375 380	1104
6623 6624 ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA 6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	1104
6624       ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC ACC GCT ACG CCT CCG GGA         6625       Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly         6626       355       360         6627         6628       TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT         6629       Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn         6630       370	1104
6625 Thr Ala Gly Ala Arg Leu Val Val Leu Ala Thr Ala Thr Pro Pro Gly 6626 355 360 365 6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	1104
6626 355 360 365  6627  6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT  6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn  6630 370 375 380	
6627 6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6628 TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG GAG GTG GCC CTG TCT AAT 6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6629 Ser Val Thr Val Pro His Pro Asn Ile Glu Glu Val Ala Leu Ser Asn 6630 370 375 380	
6630 370 375 380	1152
·	
6631	
6632 ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC ATC CCC ATT GAA GCC ATC	1200
6633 Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala Ile Pro Ile Glu Ala Ile	
6634 385 390 395 400	
6635	
6636 AGG GGG GGA AGG CAT CTC ATT TTC TGT CAT TCC AAG AAG AGG TGC GAC	1248
6637 Arg Gly Gly Arg His Leu Ile Phe Cys His Ser Lys Lys Lys Cys Asp	
6638 405 410 415	
6639	
6640 GAG CTC GCC GCA AAG CTG TCA GGC CTC GGA ATC AAC GCT GTG GCG TAT	1296
6641 Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly Ile Asn Ala Val Ala Tyr	
6642 420 425 430	
6643	
6644 TAC CGG GGG CTC GAT GTG TCC GTC ATA CCA ACT ATC GGA GAC GTC GTT	1344
6645 Tyr Arg Gly Leu Asp Val Ser Val Ile Pro Thr Ile Gly Asp Val Val	
6646 435 440 445	
6647	
6648 GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC TAT ACG GGC GAC TTT GAC	1392
6649 Val Val Ala Thr Asp Ala Leu Met Thr Gly Tyr Thr Gly Asp Phe Asp	1072
6650 450 455 460	
6651	
6652 TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC CAG ACA GTC GAC TTC AGC	1440
6653 Ser Val Ile Asp Cys Asn Thr Cys Val Thr Gln Thr Val Asp Phe Ser	
6654 465 470 475 480	
6655	
6656 TTG GAT CCC ACC TTC ACC ATT GAG ACG ACC GTG CCT CAA GAC GCA	1488
6657 Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr Val Pro Gln Asp Ala	1400
6658 485 490 495	
6659	
6660 GTG TCG CGC TCG CAG CGG CGG GGT AGG ACT GGC AGG GGT AGG AGA GGC	1536
	1236
6662 500 505 510	
6662 500 505 510 6663	1504
6662 500 505 510	1584

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:07:09

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6666			515					520					525				
6667																	
6668	TCC	TCG	GTC	CTG	TGT	GAG	TGC	TAT	GAC	GCG	GGC	TGT	GCT	TGG	TAC	GAG	1632
6669	Ser	Ser	Val	Leu	Cys	Glu	Cys	Tyr	Asp	Ala	Gly	Cys	Ala	Trp	Tyr	Glu	
6670		530					535					540					
6671	·																
6672								GTT									
6673	Leu	Thr	Pro	Ala	Glu	Thr	Ser	Val	Arg	Leu		Ala	Tyr	Leu	Asn		
6674	545					550					555					560	
6675							•										
6676								GAC									
6677	Pro	Gly	Leu	Pro		Cys	Gln	Asp	His		Glu	Phe	Trp	GLu		Val	
6678					565					570					575		
6679						~~=		~	~~.	~ . ~	mm.a	mma	maa	~~~	3.00	330	1776
6680	TTC	ACA	GGC	CTC	ACC	CAT	ATA	GAT	GCA	CAC	TTC	TTG	TCC	CAG	ACC	AAG	1776
6681	Pne	Thr	GTA		Thr	HIS	тте	Asp		HIS	Pne	Leu	ser	590	THE	гÃг	
6682				580					585					390			
6683 6684	a a a	aa x	CCS	CAC	220	mma	ccc	TAC	ama.	CT A	CCA	ሞልሮ	CAA	acc	ACG	CTC	1824
6685								Tyr									
6686	GIII	ATG	595	АЗР	ASII	FILE	FIO	600	пеа	Val	AIG	- 1 -	605	n_u	****	, , ,	
6687			3,73					000					000				
6688	TGC	GCC	AGG	GCT	CAG	GCC	CCA	CCT	CCA	TCA	TGG	GAT	CAA	ATG	TGG	AAG	1872
6689								Pro									
6690	-1-	610	5				615				-	620			_	-	
6691												- t,					
6692	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	GGG	CCA	ACA	CCC	TTG	CTG	1920
6693	Cys	Leu	Ile	Arg	Leu	Lys	Pro	Thr	Leu	His	Gly	Pro	Thr	Pro	Leu	Leu	
6694	625					630					635					640	
6695																	
6696								AAT									
6697	Tyr	Arg	Leu	Gly		Val	Gln	Asn	Glu		Thr	Leu	Thr	His		Ile	
6698					645					650					655		•
6699											~.~	ama	~~~	ama	ama		2013 hand refurn
6700								ATG									2013 NAM
6701	Thr	ьys	тyr			АТа	cys	Met		Ата	Asp	Leu	GIU		νат		// cofur.
6702				660					665					670			612
6703	3 CITI																2016(2) INFORM
6704 6705	ACT																2010(2) 11110111
6706		/ i	) SE	OUEN	CE C	HARA	פאינים	ISTI	cs:								
6707		, 1	•	_				ase j		s							
6708			•	•				aci	<b>-</b>	_							
6709			•	•				sin									
6710					OPOL												
6711			•	•													

(ix) FEATURE:

(A) NAME/KEY: CDS
(B) LOCATION: 1..648

(ii) MOLECULE TYPE: cDNA

6717 6718

6716

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															111	101	SEI.	550240.IUW
	6719																	
>	6720		(XI)	SEÇ	QUENC	CE DE	SCRI	PTIC	)N: S	SEQ :	D N	):112	2:					
	6721														~~~		~~~	4.0
	6722											AGC						48
	6723	Met	Gly	Ser	Ser	His	His	His	His	His		Ser	Ser	GTĀ	Leu		Pro	
	6724	1				5					10					15		
	6725																	
	6726											GTT						96
	6727	Arg	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arg		Ile	Leu	
	6728				20					25					30			
	6729																	
	6730											CAG						144
	6731	Ser	Pro	Ala	Gly	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	Leu	
	6732			35					40					45				
	6733																	
	6734											GAC						192
	6735	Gly	Cys	Ile	Ile	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	Glu	
	6736		50					55					60					
	6737											••						
	6738	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	ACC	240
	6739	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	Thr	
	6740	65					70					75					80	
	6741																	
	6742	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	TAC	CAT	GGT	GCT	GGC	TCA	AAG	288
	6743	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	Lys	
	6744					85					90					95		
	6745																	
	6746											CAG						336
	6747	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	Val	
	6748				100					105					110			
	6749																	
	6750	GAC	CAG	GAC	CTC	GTC	GGC	TGG	CAG	GCG	CCC	CCC	GGG	GCG	CGT	TCC	TTG	384
	6751	Asp	Gln	Asp	Leu	Val	Gly	Trp	Gln	Ala	Pro	Pro	Gly	Ala	Arg	Ser	Leu	
	6752	_		115			_	_	120					125				
	6753																	
	6754 .	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	CAT	432
	6755	Thr	Pro	Cys	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	His	
	6756		130					135					140					
	6757																	
	6758											GAC						480
	6759	Ala	Asp	Val	Ile	Pro	Val	Arg	Arg	Arg	Gly	Asp	Ser	Arg	Gly	Ser	Leu	
	6760	145					150					155					160	
	6761																	
	6762	CTC	TCC	CCC	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	CCA	528
	6763	Leu	Ser	Pro	Arg	Pro	Val	Ser	Tyr	Leu	Lys	Gly	Ser	Ser	Gly	Gly	Pro	
	6764					165			-		170					175		
	6765																	
	6766											ATC						576
	6767											Ile						
	6768			•	180		-			185	_			•	190			
	6769																	
	6770	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	TCC	624
	6771											Phe						
	. –	2		- 3	-1			4			-							

## RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:07:10

			,	
6772	195	200	205	INPUT SET: S30248.raw
6773				640
6774	ATG GAA ACT ACT ATG CGG TO			648
6775	Met Glu Thr Thr Met Arg Se	er *//		
6776	210 21	15 (2) II	NFORMATION FOR	SEQ ID NO:113:
6777				
6778	(i) SEQUENCE CHARACTI	ERISTICS:		
6779	(A) LENGTH: 648	base pairs		
6780	(B) TYPE: nucle:	ic acid		
6781	(C) STRANDEDNES:	S: single		
6782	(D) TOPOLOGY: 1:	inear		
6783				

### (ii) MOLECULE TYPE: cDNA

6787 (ix) FEATURE:

(A) NAME/KEY: CDS (B) LOCATION: 1..640

### --> \$\frac{1}{6792}\$ (xi) SEQUENCE DESCRIPTION: SEQ ID NO:113

0,70	_				_					- •								
6797																		
6798					ATG												ິ96	
6799	Arg	Gly	Ser	His	Met	Gly	Ser	Val	Val	Ile	Val	Gly	Arg	Ile	Ile	Leu		
6800				20					25					30				
6801																		
6802	TCT	CCT	GCT	GGT	ATC	ACG	GCC	TAC	TCC	CAA	CAG	ACG	CGG	GGC	CTA	CTT	144	
6803	Ser	Pro	Ala	Gly	Ile	Thr	Ala	Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	Leu		
6804			35					40					45					
6805																		
6806	GGT	TGC	AAG	ATC	ACT	AGC	CTT	ACA	GGC	CGG	GAC	AAG	AAC	CAG	GTC	GAG	192	
6807	Gly	Cys	Lys	Ile	Thr	Ser	Leu	Thr	Gly	Arg	Asp	Lys	Asn	Gln	Val	Glu		
6808		50					55					60						
6809																		
6810	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	ACC	240	
6811	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	Thr		
6812	65					70					75					80		
6813																		
6814	TGC	GTC	AAC	GGC	GTG	TGT	TGG	ACC	GTT	TAC	CAT	GGT	GCT	GGC	TCA	AAG	288	
6815	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val	Tyr	His	Gly	Ala	Gly	Ser	Lys		
6816					85					90					95			
6817																		
6818	ACC	TTA	GCC	GGC	CCA	AAG	GGG	CCA	ATC	ACC	CAG	ATG	TAC	ACT	AAT	GTG	336	
6819	Thr	Leu	Ala	Gly	Pro	Lys	Gly	Pro	Ile	Thr	Gln	Met	Tyr	Thr	Asn	Val		

GAC CAG GAC CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC TTG 6823 Asp Gln Asp Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu

ATG GGC AGC AGC CAT CAT CAT CAT CAC AGC AGC GGC CTG GTG CCG

Met Gly Ser Ser His His His His His Ser Ser Gly Leu Val Pro

														IN	PUT	SET:	S30248	.raw
6825 6826 6827 6828														ACG Thr				432
6829 6830	GCT	-	GTC	ATT	CCG	GTG		CGG	CGG	GGC	GAC		AGG	GGG	AGC	CTG		480
6831 6832 6833	Ala 145	Asp	Val	Ile	Pro	Val 150	Arg	Arg	Arg	Gly	Asp 155	Ser	Arg	Gly	Ser	Leu 160		
6834 6835 6836					Pro		_			Lys				GGT Gly	Gly			528
6837 6838														GCT				576
6839 6840 6841	Leu	Leu	Cys	Pro 180	Ser	Gly	His	Ala	Val 185	Gly	Ile	Phe	Arg	Ala 190	Ala	Val		
6842 6843 6844 6845														GTA Val				624
6846 6847 6848 6849		GAA Glu 210			ATG Met	C	GTC1	TTGA	(2)	INFO	ORMAT	rion	FOR	SEQ		VO:11	4:	648
6850 6851 6852 6853 6854 6855		(i)	( I ( I	A) LE B) T? C) S?	CE CHENGTH PE: TRANI	H: 49 nucl	98 ba Leic ESS:	ase p acio sino	pairs 1	5					1	e.	रिंदू ⊹ अदे	
6856 6857 6858		(ii)	MOI	LECUI	LE TY	PE:	CDN	A										
6859 6860 6861 6862 6863		(ix)	(1	,	E: AME/I DCATI			198										
<b>6864</b> 6865		(xi)	SEÇ	QUENC	CE DI	SCR	PTI	ON: S	SEQ I	ID NO	):114	1:						
6866 6867 6868 6869														GAG Glu				48
6870 6871 6872 6873														ACC Thr 30				96
6874 6875 6876 6877														AAG Lys				144

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														78		SET.	S30248.raw
6878	CCC	aac	CCA	ΔAG	aga	CCA	ΔͲሮ	۸cc	CAG	ΔΤС	ጥልሮ	ልሮሞ	λλΤ				192
6879						Pro											192
6880	7.20	50		-,-	0_1		55		<b>O</b> ±	1100	-1-	60	no	,,,		· · · · ·	
6881		•															
6882	GAC	CTC	GTC	aac	TGG	CAG	GCG	CCC	CCC	aaa	aca	COT	TCC	ጥጥር	ACA	CCA	240
6883						Gln											240
6884	65	пец	VUL	GLY	LLP	70	AIG	110	110	GLY	75	ALG	Der	пса	1111	80	
6885	03					, 0					, ,					00	
6886	TOC	ארכי	ጥረጥ	aac	AGC	TCA	GAC	<u>.</u> Стр	ሞልሮ	ጥጥረ፤	GTC.	ACG	) C)	СУП	COT	GAC	288
6887						Ser											200
6888	Cys	1111	Cys	GLY	85	Der	ASP	пеа	ıyı	90	Val	1111	Arg	1113	95	rob	
6889					0.5					90					93		
6890	GTC	አጥጥ	CCG	стс	CGC	CGG	caa	aac	GAC	አርጥ	AGG	aga.	A C C	CTC	CTC	TCC	336
6891						Arg											330
6892	Val	116	110	100	AL 9	AL 9	Arg	GLY	105	Ser	Arg	GLY	Ser	110	пеа	Ser	
6893				100					103					110			
6894	CCC	λGG	CCT	GTC.	<b>חככ</b>	TAC	ጥጥር	λλG	aac	ጥረጥ	ጥሮር	COT	COT	CCA	CTG	CTC	384
6895						Tyr											304
6896	FIO	Arg	115	Val	Der	1 <b>y</b> 1	пец	120	СТУ	Der	261	GLY	125	FIO	nea	Dea	
6897			115					120					123				
6898	TGC	CCT	TCG	aga	CAC	GCT	GTG	ggc	ልጥሮ	ጥጥር	caa	CCT	acc	сπа	TCC	ACC	432
6899						Ala											452
6900	Cys	130	JCI	OLY	1115	14	135	GLY	116	1116	nr 9	140	AIG	Val	Cys	1111	
6901		130				. Br.	133					140					
6902	cgg	GGG	стт	aca	ΔAG	GCG	GTG	GAC	արար	стс	מממ	СΤΆ	GAG	<b>שככ</b>	ΔТС	GAA	480
6903						Ala											100
6904	145	<b>-</b>			-1-	150				,	155					160	
6905																	
6906	ACT	ACT	ATG	CGG	тст	TGA											498
6907				Arg		*/											
6908				5	165	V	121	INFO	ORMA'	rion	FOR	SEQ	ID 1	VO: 1	15:		
6909							<b>\</b> - <b>/</b>										
6910		(i)	SEC	QUENC	CE CI	IARAC	TER.	ISTIC	cs:								
6911		` '				I: 64				3							
6912						nuc]											
6913			•	•		DEDNE											
6914			-	-		GY:		-									
6915			•	•													
6916		(ii)	MOI	LECUI	LE TY	PE:	CDNA	A									
6917																	
6918																	
6919		(ix)	) FE	ATURI	ጀ:												
6920			(1	A) NA	AME/I	KEY:	CDS										
6921			(1	3) L(	CAT:	ON:	16	548									
6922																	
6923																	
6924		(xi)	) SE(	QUENC	CE DI	ESCRI	PTI	ON: S	SEQ 1	D NO	):11	5:					
6925																	
6926						CAT											48
6927		Gly	Ser	Ser		His	His	His	His		Ser	Ser	Gly	Leu		Pro	
6928	1				5					10					15		
6929																	
6930	CGC	GGC	AGC	CAT	ATG	GGT	TCT	GTT	GTT	ATT	GTT	GGT	AGA	ATT	ATT	TTA	96

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6931	Arg	Gly	Ser		Met	Gly	Ser	Val		Ile	Val	Gly	Arg	Ile			
6932				20					25					30			
6933	mam	aam	aam	mam	3.00	3.00	000	ma a	maa	<b>a</b> 2 2	<b>a</b>	3.00	000	000	OIII N	amm	144
6934					ATC												144
6935 6936	Set	СТА	35	Ser	Ile	THE	АТА	40	Ser	GTII	GIII	THE	45	СТУ	,Leu	Leu	
6937			33					40					45				
6938	GGT	TGC	AAG	ATC	ACT	AGC	СТТ	ACA	GGC	CGG	GAC	DAA	AAC	CAG	GTC	GAG	192
6939					Thr												
6940	1	50	-2-				55		2	3		60					
6941																	
6942	GGA	GAG	GTT	CAG	GTG	GTT	TCC	ACC	GCA	ACA	CAA	TCC	TTC	CTG	GCG	ACC	240
6943	Gly	Glu	Val	Gln	Val	Val	Ser	Thr	Ala	Thr	Gln	Ser	Phe	Leu	Ala	Thr	
6944	65					70					75					80	
6945																	
6946					GTG												288
6947	Cys	Val	Asn	Gly	Val	Cys	Trp	Thr	Val		His	Gly	Ala	Gly		Lys	
6948					85					90					95		
6949			~~~	~~~	~~		~~~	<b>aa</b> .			~~~	. m.a	m. a			ama	226
6950					CCA												336
6951	THE	Leu	АТа		Pro	ràs	GTÄ	PLO		Thr	GIN	мес	Tyr		ASN	vaı	
6952 6953				100					105					110			
6954	GAC	CAG	GAC	מיזיט	GTC	GGC	таа	CAG	aca	מממ	מממ	aaa	aca	ССТ	<b>חרכ</b>	ጥጥር	384
6955					Val												4. J. O T
6956		·	115			<b>-</b> -,		120				017	125	9			
6957																	
6958	ACA	CCA	TGC	ACC	TGT	GGC	AGC	TCA	GAC	CTT	TAC	TTG	GTC	ACG	AGA	CAT	432
6959					Cys												
6960		130	-		-	_	135		_		-	140			_		
6961																	
6962	GCT	GAC	GTC	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	CTG	480
6963		Asp	Val	Ile	Pro		Arg	Arg	Arg	Gly	Asp	Ser	Arg	Gly	Ser		
6964	145					150					155					160	
6965																	
6966					CCT												528
6967	Leu	Ser	Pro	Arg	Pro	vaı	Ser	Tyr	Leu	_	GTĀ	ser	ser	СТА	-	Pro	
6968 6969					165					170					175		
6970	CTC	משמ	TICC	CCT	TCG	aaa	CAC	COT	GT G	aac	አሞሮ	መጥረ	caa	COM	acc	GT A	576
6971					Ser												370
6972	nou.	200	٥ړ٥	180		017	1115	niu	185	011	110	1110	9	190	nru	, ,	
6973																	
6974	TGC	ACC	CGG	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	TCC	624
6975					Val												
6976	•		195	-			-	200		•			205				•
6977																	
6978					ATG			TGA	//								648
6979	Met		Thr	Thr	Met	Arg		* [									
6980		210					215	_	(2)	INF	ORMA	rion	FOR	SEQ	ID 1	NO:11	.6:
6981																	
6982		(i		_	CE CI												
6983			( )	A) L	ENGTI	1: 20	J07 I	oase	pai	rs							

INPUT SI	3 <b>T:</b> S3	3 <i>0248.ra</i> w
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															IN	PUT	SET: S	30248.raw
	6984			( I	B) T	YPE:	nuc]	leic	acio	3								
	6985			i	c) S	[RAN]	DEDNI	ESS:	sind	le								
	6986							line		•								
	6987			•	•													
	6988		(ii)	MOI	LECUI	LE T	YPE:	CDN	4									
	6989		•															
	6990																	
	6991																	
	6992		(ix	FE!	ATURI	፯:												
	6993		,			AME/I	KEY:	CDS										
	6994			-	-			1	2004									
	6995			,-	-, -													
	6996																	
>	6997		(xi	SEC	OUEN	CE DI	SCRI	[PTI	)N: 5	SEO I	ED NO	):116	5 :					
	6998		,,	,,	,			\					•					
	6999	ATG	CAT	ATG	САТ	CAT	САТ	CAC	CAT	САТ	СТС	GTG	CCG	CGC	GGC	AGC	GCG	48
	7000							His										
	7001	1				5					10			••• 9	,	15		
	7002	_				_												
	7003	CCC	ΔТС	ACG	GCC	TAC	TCC	CAA	CAG	ACG	CGG	GGC	СТА	СТТ	GGT	TGC	AAG	96
	7004							Gln										, ,
	7005				20	- 3 -		<b></b>	·	25	**-9	<b>-</b> 1	200		30	<b>4,5</b>	4,75	
	7006				20			•		2.5					50			
	7007	ΔТС	ΔСТ	AGC	Стт	ACA	GGC	CGG	GAC	ΔAG	AAC	CAG	GTC	GAG	GGA	GAG	СПТ	144
	7008							Arg										
	7009			35				9	40	2,0		<b></b>		45	O± 3	014	V	
	7010													4.5				
	7011	CAG	CTC	ርጥጥ	ጥሮሮ	ACC	CCA	ACA	CAA	ጥሮሮ	ጥጥሮ	СТС	GCG	ACC	ጥርር	GTC	ልልሮ	192
	7012							Thr			_				_			172
	7013	01	50	,	501	••••	niu	55	01	DCI	1110	шси	60		Oy5	***	no	
	7013		30					33					00					
	7015	GGC	GTG.	ጥርጥ	TCC	<b>ACC</b>	Culur	TAC	СУП	ССТ	аст	aac	ጥሮአ	λλC	ACC	מיחים	GCC	240
	7016							Tyr										240
	7017	65	<b>*</b> 4±	O <sub>J</sub> O			70	- 1 -	****	O-1	ALU	75	501	цуб	****	БСС	80	
	7018	05					, ,					, 5					00	
	7019	GGC	CCA	AAG	GGG	CCA	ልጥሮ	ACC	CAG	ΔТС	ጥልሮ	ΔСТ	יי א א	стс	GAC	CAG	GAC	288
	7020							Thr										200
	7021	017		-,-	<b>-</b> 1	85			01	1100	90				пор	95	nop	
	7022					00					70					,,		
	7023	CTC	GTC	GGC	TGG	CAG	ggg	ccc	ccc	GGG	aca	ССТ	TCC	ጥጥር	ACA	CCA	TGC	336
	7024							Pro										550
	7025			<b>-</b> 1	100					105		9	201		110		0,10	
	7026				-00					100								
	7027	ACC	тст	GGC	AGC	тса	GAC	CTT	TAC	ጥጥር	GTC	ACG	AGA	САТ	GCT	GAC	GTC	384
	7028							Leu										301
	7029	****	0,5	115	501	001	nop	i.	120	LCu	141	****	A. y	125	AIG	rop	VU.	
	7020			-13					120					143				
	7030	מיייי ע	CCG	GTG	כפכ	CGG	CGG	GGC	GAC	ΔСΤ	<b>V</b> GG	ggg	<b>V</b> GC	CTC	СТС	ሞሮሮ	מממ	432
	7031							Gly										<del>4</del> 32
	7032	C	130		~. y	y	n.y	135	rab	SEL	~- y	O T Y	140	neu.	Leu	DGI	- 10	
	7033		100					100					7.40					
	7034	ACC	CCT	GTIC	שככ	ሞአሮ	ጥጥረነ	AAG	מממ	ጥርጥ	ምርረ	COM	COM	CCA	CTC	מידים	ሞርር	480
	7035							Lys										400
	1030	ALG	FIO	vaı	Ser	TAT	ьeu	пåз	сту	SEL	26T	ату	оту	FIO	neu	ьeu	Cys	

150   150   150   150   150   150   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160   160															7.	I <b>PI</b> IT	SET.	\$30248 may
7039   CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC GTA TGC ACC CGG	7037	145					150					155			11	1101		550240.74W
The color of the																		
165	7039	CCT	TCG	GGG	CAC	GCT	GTG	GGC	ATC	TTC	CGG	GCT	GCC	GTA	TGC	ACC	CGG	528
7042   7043   7044   7047   7046   7047   7047   7047   7047   7048   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   7049   70	7040	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	Val	Cys	Thr	Arg	
Total   God   Green   God   Aag   God   Green   Gac   TTC   Green	7041					165					170					175		
Total   Call   Val   Ala   Lys   Ala   Lys   Ala   Call   Asp   Phe   Val   Pro   Val   Glu   Ser   Met   Glu   Thr   180   180   185   185   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190   190																		
185																		576
Total   The met   Arg   Ser   Pro   Val   Phe   Thr   Arg   Arg   Ser   Pro   Pro   Ala   Val   Pro   Val   Phe   Thr   Arg   Arg   Arg   Pro   Pro   Ala   Val   Pro   Arg   Arg   Pro   Pro   Arg   Val   Pro   Arg   Arg   Pro   Arg   Pro   Arg   Arg   Pro   Arg   Arg   Arg   Pro   Arg		Gly	Val	Ala	-	Ala	Val	Asp	Phe		Pro	Val	Glu	Ser		Glu	Thr	
The color of the					180					185					190			
The first continue of the co	-																	
195																		624
7051		unr	мет	_	Ser	Pro	vaı	Pne		Asp	Asn	ser	ser		Pro	Ата	vaı	
7051   CCG   CAG   TCA   TTT   CAA   GTG   GCC   CAC   CTA   CAC   GCT   CCC   ACT   GGC   GGC   GCC   GCT   CCC   CTG   GCC   GCC   GCT   GCC   GCC   GCT   GCC   GCC   GCT   GCC   GCC   GCC   GCT   GCC   GCC   GCC   GCC   GCC   GCT   GCC				132					200					205				
7052   7053   7054   7054   7054   7055   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056   7056		aaa	asa.	шал	mmm.	CAA	OTTO	aaa	CAC	CITE A	030	aam.	aaa	хоп	aaa	200	aaa	672
Total   Tota																		672
7054 7055     AAG AGT ACT AAA GTG CCG GCT GCA TAT GCA GCC CAA GGG TAC AAG GTG 7056     Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val 7057 7058 7059 7059 7050 7050 7050 7050 7050 7050		PIO		Ser	FILE	GIII	Val		nrs	neu	urs	WIG		1111	СТА	Ser	сту	
The color of the			210					213					220					
Topic		AAG	λαт	ΔСТ	ΔΔΔ	GTG	CCG	CCT	GCA	πаπ	CCA	מככ	CAA	GGG	ТΔС	ΔAG	GTG	720
7057   7058   7059   7059   7059   7059   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050   7050	_																	720
7058 7059 7060 7060 7061 7061 7062 7063 7064 7066 7066 7066 7066 7067 7066 7068 7069 7068 7069 7060 7060 7061 7062 7060 7061 7062 7063 7064 7064 7065 7066 7066 7066 7067 7066 7066 7066		_			,					- 7 -			· · · ·	0_1	-,-	_,_		
7059   CTC   GTC   CTC   AAT   CCG   CTC   STT   GCC   GTC   ACC   ACC   ACC   CTG   CTG   ACC   ACC   CTG   CTG   ACC   ACC   ACC   CTG   ACC							•											
Total   Tota		CTC	GTC	CTC	AAT	CCG	TCC	GTT	GCC	GCT	ACC	TTA	GGG	TTT	GGG	GCG	TAT	768
7061 7062	7060																	
Total   Arg   TCT   AAG   GCA   CAC   GGT   ATT   GAC   CCC   AAC   ATC   AGA   ACT   GGG   GTA   AGG   AG	7061												-		-		•	
Met   Ser   Lys   Ala   His   Gly   Te   Asp   Pro   Asn   Te   Asp   Thr   Gly   Val   Arg	7062							,										
7065 7066 7067 7068 7068 7068 7068 7069 7069 7070 7071 7071 7071 7072 7072 7073 7074 7075 7074 7075 7076 7077 7077 7078 7079 7070 7071 7070 7071 7071 7070 7071 7072 7072	7063	ATG	TCT	AAG	GCA	CAC	GGT	ATT	GAC	CCC	AAC	ATC	AGA	ACT	GGG	GTA	AGG	816
7066 7067 ACC ATT ACC ACA GGC GCC CCC GTC ACA TAC TCT ACC TAT GGC AAG TTT 7068 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 7069 7070 7071 CTT GCC GAT GGT GGT TGC TCT GGG GGC GCT TAT GAC ACT ACA ATC TTG GAC ACA ATC ATA ATA TGT 7072 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Cys 7073 7074 7075 GAT GAG TGC CAT TCA ACT GAC TCG ACT ACA ATC TTG GGC ACA GCC ACA 7076 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 7077 305 GTC CTG GAC CAA GCG GAG ACG GCT GCA GCG CGG CTT GTC GTC GCC 1008 7080 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Leu Ala 7081 7082 7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 7086 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7087 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104 7087 GAG GAG GTG GCC CTG TCT AAT ACT GGA ATC CCC TTC TAT GGC AAA GCC 1104 7087 GAG GAG GTG GCC CTG TCT AAT ACT GGA ATC CCC TTC TAT GGC AAA GCC 1104 7088 GLU Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala	7064	Met	Ser	Lys	Ala	His	Gly	Ile	Asp	Pro	Asn	Ile	Arg	Thr	Gly	Val	Arg	
Total   Tota	7065				260					265					270			
7068 Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 275	7066																	
7069																		864
7070 7071	-	Thr	Ile		Thr	Gly	Ala	Pro		Thr	Tyr	Ser	Thr	_	Gly	Lys	Phe	
7071 CTT GCC GAT GGT GGT TGC TCT GGG GGC GCT TAT GAC ATC ATA ATA TGT 7072 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys 7073 290 295 300  7074  7075 GAT GAG TGC CAT TCA ACT GAC TCG ACT ACA ATC TTG GGC ACA 960  7076 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 7077 305 310 310 315 320  7078  7079 GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT GTC GTC GCC 1008  7080 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 7081 325 330 335  7082  7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CAC AAC ATC GAG 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala				275					280					285				
7072 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys 7073																		0.0
7073																		912
7074 7075		Leu		ASP	GTA	GTA	cys		стА	GTA	АТа	Tyr		тте	тте	тте	cys	
7075 GAT GAG TGC CAT TCA ACT GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA 960 7076 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr 7077 305 310 310 315 320 7078 7079 GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT GTC GTC CTC GCC 1008 7080 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 325 335 7082 7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 1056 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala			290					493					300					
7076	. •	САТ	GAG	TCC	СУП	ሞሮአ	λСΨ	GAC	<b>שרכ</b> ם	አ ርጥ	אריא	א ידירי	ጥጥር፤	aac	አጥሮ	aac	እሮአ	960
7077 305 310 315 320  7078  7079 GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT GTC GTC CTC GCC 1008  7080 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala  7081 325 330 335  7082  7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG  7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu  7085 340 345 350  7086  7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC  7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala																		200
7078 7079			014	Cys	1113	Der		АЗР	Der	1111	****		пеа	Gry	116	OLY		
7079 GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT GTC GTC GCC 1008 7080 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 7081 325 330 335 7082 7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 340 345 350 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala		303					310					313					320	
7080		GTC	CTG	GAC	CAA	GCG	GAG	ACG	GCT	GGA	GCG	CGG	СТТ	GTC	GTG	СТС	GCC	1008
7081 7082 7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala																		
7082 7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 340 345 350 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala										2		3						
7083 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG 7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 340 345 350 7086 7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala											•							
7084 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 7085 340 345 350  7086  7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala		ACC	GCT	ACG	CCT	CCG	GGA	TCG	GTC	ACC	GTG	CCA	CAC	CCA	AAC	ATC	GAG	1056
7085 340 345 350  7086  7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104  7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala	7084																	
7087 GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC 1104 7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala	7085						-											
7088 Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala	7086																	
	7087																	1104
		Glu	Val		Leu	Ser	Asn	Thr		Glu	Ile	Pro	Phe	Tyr	Gly	Lys	Ala	
7089 355 360 365	7089			355					360					365				

DATE: 12/09/98 TIME: 16:07:14

#### INPUT SET: S30248.raw ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC ATT TTC TGT CAT Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His TCC AAG AAG AAG TGC GAC GAG CTC GCC GCA AAG CTG TCA GGC CTC GGA Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTG TCC GTC ATA CCA Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro ACT ATC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC Thr Ile Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG CGG GGT AGG ACT Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT CCG GGA GAA CGG Gly Arg Gly Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG TGC TAT GAC GCG Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala -500 GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC TCG GTT AGG TTG Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu CGG GCC TAC CTG AAC ACA CCA GGG TTG CCC GTT TGC CAG GAC CAC CTG Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu GAG TTC TGG GAG AGT GTC TTC ACA GGC CTC ACC CAT ATA GAT GCA CAC Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His TTC TTG TCC CAG ACC AAG CAG GCA GGA GAC AAC TTC CCC TAC CTG GTA Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val

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### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														17	NPUT	SET: 3	S30248.raw
7143	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC	CCA				1776
7144						Val											
7145		•		580			•		585					590			
7146																	
7147	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	1824
7148	Trp	Asp	Gln	Met	Trp	Lys	Cys	Leu	Ile	Arg	Leu	Lys	Pro	Thr	Leu	His	
7149	_	_	595		_	_	-	600		_		_	605				
7150																	
7151	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	CAA	AAT	GAG	GTC	1872
7152	Gly	Pro	Thr	Pro	Leu	Leu	Tyr	Arg	Leu	Gly	Ala	Val	Gln	Asn	Glu	Val	
7153		610					615					620					
7154																	
7155	ACC	CTC	ACC	CAC	CCC	ATA	ACC	AAA	TAC	ATC	ATG	GCA	TGC	ATG	TCG	GCC	1920
7156	Thr	Leu	Thr	His	Pro	Ile	Thr	Lys	Tyr	Ile	Met	Ala	Cys	Met	Ser	Ala	
7157	625					630					635					640	
7158																	
7159						ACG											1968
7160	Asp	Leu	Glu	Val		Thr	*	Glu	Phe		Leu	Arg	Arg	Gln		Cys	
7161					645					650					655		
7162																	
7163						CCA											2007
7164	GTÀ	Arg	Thr	_	Ala	Pro	Pro	Pro		Pro	Leu	Arg	1/.	٤			
7165				660					665					(2)	INFO	RMA'I' I	ON FOR SEQ ID NO:11
7166		, , ,		~***	- a			r am T	<b>3</b> ~ .								
7167		(1)		_		IARAC											
7168				-		i: 20			_	r s							
7169 7170			•			nucl											
7171			•	-		DEDNE DGY:			JT6								
7172			,,	, 10	лгоц	<i>.</i>	TT110	aı									
7172		/111	MOI	LECIII	.ह. <b>ग</b> र	PE:	CDN	Δ									
7174		( /	1101		JU 1.		CDM	•									
7175																	
7176														•			•
7177																	
7178		(ix)	FE/	ATURE	3:												
7179		,				KEY:	CDS										
7180			•	•		ON:		2004									
7181			·	•													
7182			•														
7183		(xi)	SE	QUENC	CE DE	SCR	[PTI	ON: S	SEQ :	ID NO	):11	7:					
7184																	•
7185	ATG	CAT	ATG	CAT	CAT	CAT	CAC	CAT	CAT	CTG	GTG	CCG	CGC	GGC	AGC	GCG	48
7186	Met	His	Met	His	His	His	His	His	His	Leu	Val	Pro	Arg	Gly	Ser	Ala	
7187	1				5					10					15		
7188																	
7189						TCC											96
7190	Pro	Ile	Thr		Tyr	Ser	Gln	Gln	Thr	Arg	Gly	Leu	Leu	Gly	Cys	Ile	
7191				20		•			25					30			
7192																	
7193						GGC											144
7194	Lys	Thr		Leu	Thr	Gly	Arg		Lys	Asn	Gln	Val	Glu	Gly	Glu	Val	
7195			35					40					45				

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### INPUT SET: S30248.raw

														111	FUI	SEI. S	30240.F	uw
7196	a.a	ama	amm	maa	100	<b>aa</b> .		<b>a.</b> .	maa	mma	ama	999	* 00	шаа	ama	220		100
7197					ACC										_			192
7198	GIN		vaı	ser	Thr	Ата		GIN	ser	Pne	Leu		THE	cys	Val	ASII		
7199		50					55					60						
7200	222	ama	mam	maa	3.00	amm	m s a	<b>~~ ~ ~ ~</b>	aam	aam	000	ma s	330	200	тта	aaa		240
7201					ACC													240
7202	_	vaı	cys	тгр	Thr		Tyr	HIS	GTA	Ата	_	ser	гуѕ	THI	Leu	80		
7203	65					70					75					00		
7204	000	001	330	000	003	N MC	* 00	ava	х ш ст	mag	N CITT	3 3 M	ama.	ana	CAC	CAC		288
7205					CCA										_			200
7206	GIY	PIO	rys	СТА	Pro 85	тте	THE	GTH	мес	90	THE	ASII	Val	ASP	95	ASP		
7207 7208					03					90					73			
7208	CTC	CTC	aac	таа	CAG	aca	ccc	ccc	aaa	aca	ССТ	TCC	ጥጥር	λCλ	CCA	TCC		336
7210					Gln													330
7210	цец	Val	СТУ	100	GIII	АТО	FIU	FIO	105	AIG	n. g	per	пец	110	110	Cys		
7212				100					103					110				
7212	ACC	ጥርጥ	GGC	AGC	TCA	GAC	СТТ	ТΔС	ጥጥር	GTC	ACG	AGA	САТ	GCT	GAC	GTC		384
7214					Ser													
7215	****	Cys	115	501	DCI	лор	ВСС	120	DCG	, u_	****	9	125		шр			
7216			110					120										
7217	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	CTG	CTC	TCC	CCC		432
7218					Arg													
7219		130		5	5	5	135			3	2	140				,		
7220																		
7221	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	CCA	CTG	CTC	TGC		480
7222					Tyr													
7223	145				-	150	-	•			155	-				160		
7224																		
7225	CCT	TCG	GGG	CAC	GCT	GTG	GGC	ATC	TTC	CGG	GCT	GCC	GTA	TGC	ACC	CGG		528
7226	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	Val	Cys	Thr	Arg		
7227			_		165		_			170					175			
7228																		
7229	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	TCC	ATG	GAA	ACT		576
7230	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	Ser	Met	Glu	Thr		
7231				180					185					190				
7232																		
7233					CCG													624
7234	Thr	Met	_	Ser	Pro	Val	Phe		Asp	Asn	Ser	Ser		Pro	Ala	Val		
7235			195					200					205					
7236																		
7237					CAA													672
7238	Pro		Ser	Phe	Gln	Val		His	Leu	His	Ala		Thr	СТА	ser	GTÀ		
7239		210					215					220						
7240							~~~			~~.	~~~	~		m. a		ama		720
7241					GTG													720
7242	_	ser	rnr	гÀг	Val		ата	ата	Tyr	ата		GIN	чΣХ	Tyr	ьys			
7243	225					230					235					240		
7244	ama	ama.	ama.	3.20	000	maa	amm	~~~	aam	3.00	mm »	000	mmm	aaa	aaa	mam		768
7245					CCG													/00
7246	ьeu	vaı	ьeu	ASN	Pro	ser	vaı	ата	ата		ьeu	стλ	rne	стÄ		Tyr		
7247					245					250					255			
7248																		

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#### INPUT SET: S30248.raw ATG TCT AAG GCA CAC GGT ATT GAC CCC AAC ATC AGA ACT GGG GTA AGG Met Ser Lys Ala His Gly Ile Asp Pro Asn Ile Arg Thr Gly Val Arg ACC ATT ACC ACA GGC GCC CCC GTC ACA TAC TCT ACC TAT GGC AAG TTT Thr Ile Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe CTT GCC GAT GGT GGT TGC TCT GGG GGC GCT TAT GAC ATC ATA ATA TGT Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Cys GAT GAG TGC CAT TCA ACT GAC TCG ACT ACA ATC TTG GGC ATC GGC ACA Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Ile Gly Thr GTC CTG GAC CAA GCG GAG ACG GCT GGA GCG CGG CTT GTC GTG CTC GCC Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala ACC GCT ACG CCT CCG GGA TCG GTC ACC GTG CCA CAC CCA AAC ATC GAG Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu GAG GTG GCC CTG TCT AAT ACT GGA GAG ATC CCC TTC TAT GGC AAA GCC Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC ATT TTC TGT CAT Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His TCC AAG AAG AAG TGC GAC GAG CTC GCC GCA AAG CTG TCA GGC CTC GGA Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTG TCC GTC ATA CCA Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro ACT ATC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC Thr Ile Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG GGT AGG ACT 1440

DATE: 12/09/98 TIME: 16:07:17

														IΛ	PUT	SET:	S30248.raw
7302	Thr	Val	Pro	Gln	Asp	Ala	Val	Ser	Ara	Ser	Gln	Arg	Ara			_	20021011411
7303	465					470			3		475	5	5	2	3	480	
7304																	
7305	GGC	AGG	GGT	AGG	AGA	GGC	ATC	TAC	AGG	TTT	GTG	ACT	CCG	GGA	GAA	CGG	1488
7306	Gly	Arq	Gly	Arq	Arq	Gly	Ile	Tyr	Arq	Phe	Val	Thr	Pro	Gly	Glu	Arg	
7307	-		-	_	485	•		•	_	490				•	495	_	
7308																	
7309	CCC	TCG	GGC	ATG	TTC	GAT	TCC	TCG	GTC	CTG	TGT	GAG	TGC	TAT	GAC	GCG	1536
7310	Pro	Ser	Gly	Met	Phe	Asp	Ser	Ser	Val	Leu	Cys	Glu	Cys	Tyr	Asp	Ala	
7311				500					505					510			
7312																	
7313			_	_								ACC					1584
7314	Gly	Cys	Ala	Trp	Tyr	Glu	Leu	Thr	Pro	Ala	Glu	Thr	Ser	Val	Arg	Leu	
7315			515					520					525				
7316																	
7317												TGC					1632
7318	Arg	Ala	Tyr	Leu	Asn	Thr	Pro	Gly	Leu	Pro	Val	Cys	Gln	Asp	His	Leu	
7319		530					535					540					
7320																	
7321			-					-				CAT					1680
7322		Phe	Trp	GTU	Ser		Phe	Thr	СТĀ	Leu		His	ITe	Asp	АТа		
7323	545					550					555					560	
7324	mma	mma	maa	~ ~ ~		330	a. a	223	<b>a</b> a.	~~~		mma	000	mag	ama	C/III N	1720
7325 7326												TTC					1728
7326	Pne	Leu	ser	GTU	565	гух	GIII	ATA	GTÅ	570	ASI	Phe	PIO	туг	575	Val	
7327					363					370					3/3		
7329	CCA	ጥልሮ	CAA	acc	<b>NCG</b>	GTG	ጥርሮ	GCC	AGG	ССТ	CAG	GCC	CCA	ССТ	CCA	ጥር ል	1776
7330												Ala					27,0
7331		- 7 -	· · · ·	580	****	141	<b>-</b> 7.5	77.10	585	AIG	91	n		590			
7332																	
7333	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	1824
7334												Lys					
7335	-	•	595			•	-	600				-	605				
7336																	
7337	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	CAA	AAT	GAG	GTC	1872
7338	Gly	Pro	Thr	Pro	Leu	Leu	Tyr	Arg	Leu	Gly	Ala	Val	Gln	Asn	Glu	Val	
7339		610					615					620					
7340		•															
7341												GCA					1920
7342		Leu	Thr	His	Pro		Thr	Lys	Tyr	Ile	Met	Ala	Cys	Met	Ser	Ala	
7343	625					630					635					640	
7344																	
7345												CGT					1968
7346	Asp	Leu	GLu	Val		Thr	*	GLu	Phe		Leu	Arg	Arg	GLn		Cys	
7347					645					650					655		
7348	~~~	~~~	3.00	aa.	963	001	~~:	001	aa.	aa.	ama		maa				2027
7349												AGA	TCC				2007
7350 7351	стХ	Arg	III	Arg 660	Ala	Pro	Pro	PIO		Pro	Leu	arg					
1221				VOO					665								

7352 (2) INFORMATION FOR SEQ ID NO:118:

7352

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														IN	PUT	SET: S30	0248.raw	
7513					565					570					575			
7514																		
7515	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC	CCA	CCT	CCA	TCA	1776	
7516													Pro					
7517		•		580			_		585					590				
7518																		
7519	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	1824	
7520													Pro					
7521	-	-	595		-	•	-	600		_		•	605					
7522																		
7523	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	CAA	AAT	GAG	GTC	1872	
7524	Gly	Pro	Thr	Pro	Leu	Leu	Tyr	Arg	Leu	Gly	Ala	Val	Gln	Asn	Glu	Val		
7525	_	610					615	_		_		620						
7526																		
7527	ACC	CTC	ACC	CAC	CCC	ATA	ACC	AAA	TAC	ATC	ATG	GCA	TGC	ATG	TCG	GCC	1920	
7528	Thr	Leu	Thr	His	Pro	Ile	Thr	Lys	Tyr	Ile	Met	Ala	Cys	Met	Ser	Ala		
7529	625					630					635					640		
7530																		
7531													CGA				1968	
7532	Asp	Leu	Glu	Val		Thr	*	Glu	Phe		Leu	Arg	Arg	Gln		Cys		
7533					645					650					655			
7534														_				
7535													TCC				2007	
7536	GTA	Arg	Thr	Arg	Ala	Pro	Pro	Pro		Pro	Leu	Arg	1/			N/1 8701	, non ano	TD (NO. 11
7537				660					665					(2).	LNFO	KMAT TO	FOR SEQ	P. Salama
7538								- am -	<b>.</b>									o Marine
7539		(i)		QUENC						. ~								
7539 75 <b>4</b> 0		(i)	( )	A) LI	engti	H: 20	007 k	oase	pair	:s								
7539 7540 7541		(i)	( ) ( )	A) LI B) TY	ENGTI PE:	1: 20 nuc]	007 k Leic	ase acid	pai:	:s								. شروب
7539 7540 7541 7542		(i)	(1 (1	A) LI B) TY C) ST	ENGTH PE: PRANI	H: 20 nucl	007 k Leic ESS:	ase acio sino	pai:	:s								. Salar
7539 7540 7541 7542 7543		(i)	(1 (1	A) LI B) TY	ENGTH PE: PRANI	H: 20 nucl	007 k Leic ESS:	ase acio sino	pai:	:s								
7539 7540 7541 7542 7543 7544		•	(1 (1 (1	A) LI B) TY C) ST D) T(	engti (PE: rrani Opol(	H: 20 nucl DEDNI DGY:	007 k Leic ESS: line	ase acio sino ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545		•	(1 (1 (1	A) LI B) TY C) ST	engti (PE: rrani Opol(	H: 20 nucl DEDNI DGY:	007 k Leic ESS: line	ase acio sino ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545		•	(1 (1 (1	A) LI B) TY C) ST D) T(	engti (PE: rrani Opol(	H: 20 nucl DEDNI DGY:	007 k Leic ESS: line	ase acio sino ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545 7546		•	(1 (1 (1	A) LI B) TY C) ST D) T(	engti (PE: rrani Opol(	H: 20 nucl DEDNI DGY:	007 k Leic ESS: line	ase acio sino ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545 7546 7547		(ii)	(1 (1 (1) (1) (1)	A) LECUI	ENGTH PE: PRANI PPOLO	H: 20 nucl DEDNI DGY:	007 k Leic ESS: line	ase acio sino ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545 7546 7547 7548 7549		(ii)	(1 (1 (1) ) MOI	A) LI B) TY C) ST D) T(	ENGTH (PE: PRANI DPOLO LE TY	H: 20 nucl DEDNI DGY: YPE:	D07 k Leic ESS: line	ase acio sino ar	pai:	cs								
7539 7540 7541 7542 7543 7544 7545 7546 7547		(ii)	(1) (1) (1) MOI	A) LECUI	ENGTH (PE: PRANI DPOLO LE TY	H: 20 nucl DEDNI DGY: YPE:	DO7 h Leic ESS: line CDNA	oase acio sing ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545 7546 7547 7548 7549 7550		(ii)	(1) (1) (1) MOI	A) LECUI	ENGTH (PE: PRANI DPOLO LE TY	H: 20 nucl DEDNI DGY: YPE:	DO7 h Leic ESS: line CDNA	oase acio sing ar	pai:	: s								
7539 7540 7541 7542 7543 7544 7545 7546 7547 7548 7549 7550 7551		(ii)	(1) (1) (1) MOI	A) LECUI	ENGTH (PE: PRANI DPOLO LE TY	H: 20 nucl DEDNI DGY: YPE:	DO7 h Leic ESS: line CDNA	oase acio sing ar	pai:	:s								
7539 7540 7541 7542 7543 7544 7545 7546 7547 7548 7549 7550 7551		(ii)	(1 (1 (1) ) MOI	A) LECUI	ENGTH (PE: PRANI DPOLO LE TY E: AME/I DCAT	H: 20 nucl DEDNH DGY: VPE: KEY:	CDS	oase acid sing ar	pain d gle		<b>D:11</b>	<b>:</b>						
7539 7540 7541 7542 7544 7544 7545 7546 7547 7548 7550 7551 7552 7553 <b>7554</b> 7555		(ii)	(1) (1) MO1 ) FEA	A) LECUI ATURE A) NA B) LC	ENGTH (PE: (PRANI) (POL) LE TY E: (AME/I) (CAT)	H: 20 nuclosed nuclos	CDS	oase acid sing ear	paind d gle	CD NO								
7539 7540 7541 7542 7544 7544 7545 7546 7547 7548 7550 7551 7552 7553 <b>7554</b> 7555		(ii; (ix; (xi;	(1) (1) MO1 ) FEA	A) LECUI ATURE A) NA B) LC  CAT	ENGTH (PE: (PRANI) (POLC) LE TY (E: (AME/I) (CAT) (CAT)	H: 20 nuclosed nuclos	CDS 12	oase acid sing ear	paind d gle	CTG	GTG	CCG	CGC				48	
7539 7540 7541 7542 7544 7544 7545 7546 7547 7548 7550 7551 7552 7553 <b>7554</b> 7555		(ii; (ix; (xi;	(1) (1) MO1 ) FEA	A) LECUI ATURE A) NA B) LC  CAT	ENGTH (PE: (PRANI) (POLC) LE TY (E: (AME/I) (CAT) (CAT)	H: 20 nuclosed nuclos	CDS 12	oase acid sing ear	paind d gle	CTG	GTG	CCG	CGC Arg		Ser			
7539 7540 7541 7542 7544 7544 7545 7546 7547 7548 7550 7551 7552 7556 7557 7558		(ii; (ix; (xi;	(1) (1) MO1 ) FEA	A) LECUI ATURE A) NA B) LC  CAT	ENGTH (PE: (PRANI) (POLC) LE TY (E: (AME/I) (CAT) (CAT)	H: 20 nuclosed nuclos	CDS 12	oase acid sing ear	paind d gle	CTG	GTG	CCG						
7539 7540 7541 7542 7544 7544 7544 7544 7546 7548 7549 7550 7551 7552 7556 7557 7558 7559	Met 1	(ii) (ix) (xi) CAT	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	A) LECUI ATURE A) NA B) LC  CAT His	ENGTH YPE: TRANI DPOLO LE TY  E: AME/I DCAT: CAT His 5	H: 20 nuclosed nuclos	CDS 12	case acid sing ar acid	paind d gle CAT His	CTG Leu 10	GTG Val	CCG Pro	Arg	Gly	Ser 15	Ala	48	
7539 7540 7541 7542 7544 7544 7544 7544 7546 7548 7549 7550 7551 7552 7556 7557 7556 7557	Met 1 CCC	(ii) (ix) (xi) CAT His	(1) ) FEA (1) ) SE( ATG Met	A) LEBO TY CONTROL TO THE CONTROL TH	ENGTH YPE: TRANI DPOLO LE TY  E: AME/I DCAT: CAT His 5	H: 20 nuclosed nuclos	CDS 12	case acid sing a	paind description of the paint	CTG Leu 10 CGG	GTG Val	CCG Pro	Arg	Gly GGT	Ser 15 TGC	Ala		
7539 7540 7541 7542 7544 7544 7544 7544 7546 7547 7548 7550 7551 7552 7556 7557 7556 7557 7558 7550 7560 7561	Met 1 CCC	(ii) (ix) (xi) CAT His	(1) ) FEA (1) ) SE( ATG Met	A) LH B) TY C) ST C) ST C) TO LECUI ATURH A) NA B) LO CAT His GCC Ala	ENGTH YPE: TRANI DPOLO LE TY  E: AME/I DCAT: CAT His 5	H: 20 nuclosed nuclos	CDS 12	case acid sing a	paind description of the paint	CTG Leu 10 CGG	GTG Val	CCG Pro	Arg	Gly GGT Gly	Ser 15 TGC	Ala	48	
7539 7540 7541 7542 7543 7544 7544 7545 7546 7547 7548 7550 7551 7552 7556 7557 7558 7557 7560 7561 7562	Met 1 CCC	(ii) (ix) (xi) CAT His	(1) ) FEA (1) ) SE( ATG Met	A) LEBO TY CONTROL TO THE CONTROL THE C	ENGTH YPE: TRANI DPOLO LE TY  E: AME/I DCAT: CAT His 5	H: 20 nuclosed nuclos	CDS 12	case acid sing a	paind description of the paint	CTG Leu 10 CGG	GTG Val	CCG Pro	Arg	Gly GGT	Ser 15 TGC	Ala	48	
7539 7540 7541 7542 7544 7544 7544 7544 7544 7548 7548 7550 7551 7552 7553 <b>7554</b> 7555 7556 7557 7558 7556	Met 1 CCC Pro	(ii) (ix) (xi) CAT His	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	A) LH B) TY C) ST C) ST C) TO LECUI ATURH A) NA B) LO CAT His GCC Ala 20	ENGTH YPE: TRANI DPOLO LE TY E: AME/I DCAT CAT His 5 TAC Tyr	H: 20 nuclock	CDNA CDNA CDS 12 CAC His CAA Gln	case acid sing ar acid sing aci	paind depth of the second seco	CTG Leu 10 CGG Arg	GTG Val GGC Gly	CCG Pro CTA Leu	Arg CTT Leu	Gly GGT Gly 30	Ser 15 TGC Cys	Ala ATC Ile	<b>48</b> 96	
7539 7540 7541 7542 7543 7544 7544 7545 7546 7547 7548 7550 7551 7552 7556 7557 7558 7557 7560 7561 7562	Met 1 CCC Pro	(ii) (ix) (xi) CAT His ATC Ile	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	A) LH B) TY C) ST C) ST C) TO LECUI  ATURH A) NA B) LO CAT His GCC Ala 20 CTT	ENGTH YPE: TRANI DPOLO LE TY  E: AME/I DCAT His TAC Tyr  ACA	H: 20 nuclock	CDNA CDS 12 CPTIC CAC His CAA Gln CGG	case acid sing ar acid sing acid s	paind depth of the second seco	CTG Leu 10 CGG Arg	GTG Val GGC Gly	CCG Pro CTA Leu	Arg	Gly GGT Gly 30 GGA	Ser 15 TGC Cys	ATC Ile	48	

## RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

TIME: 16:07:21

DATE: 12/09/98

#### INPUT SET: S30248.raw CAG GTG GTT TCC ACC GCA ACA CAA TCC TTC CTG GCG ACC TGC GTC AAC Gln Val Val Ser Thr Ala Thr Gln Ser Phe Leu Ala Thr Cys Val Asn GGC GTG TGT TGG ACC GTT TAC CAT GGT GCT GGC TCA AAG ACC TTA GCC Gly Val Cys Trp Thr Val Tyr His Gly Ala Gly Ser Lys Thr Leu Ala GGC CCA AAG GGG CCA ATC ACC CAG ATG TAC ACT AAT GTG GAC CAG GAC Gly Pro Lys Gly Pro Ile Thr Gln Met Tyr Thr Asn Val Asp Gln Asp CTC GTC GGC TGG CAG GCG CCC CCC GGG GCG CGT TCC TTG ACA CCA TGC Leu Val Gly Trp Gln Ala Pro Pro Gly Ala Arg Ser Leu Thr Pro Cys ACC TGT GGC AGC TCA GAC CTT TAC TTG GTC ACG AGA CAT GCT GAC GTC Thr Cys Gly Ser Ser Asp Leu Tyr Leu Val Thr Arg His Ala Asp Val ATT CCG GTG CGC CGG CGC GAC AGT AGG GGG AGC CTG CTC TCC CCC Ile Pro Val Arg Arg Gly Asp Ser Arg Gly Ser Leu Leu Ser Pro AGG CCT GTC TCC TAC TTG AAG GGC TCT TCG GGT GGT CCA CTG CTC TGC Arg Pro Val Ser Tyr Leu Lys Gly Ser Ser Gly Gly Pro Leu Leu Cys CCT TCG GGG CAC GCT GTG GGC ATC TTC CGG GCT GCC GTA TGC ACC CGG Pro Ser Gly His Ala Val Gly Ile Phe Arg Ala Ala Val Cys Thr Arg GGG GTT GCG AAG GCG GTG GAC TTT GTG CCC GTA GAG TCC ATG GAA ACT Gly Val Ala Lys Ala Val Asp Phe Val Pro Val Glu Ser Met Glu Thr ACT ATG CGG TCT CCG GTC TTC ACG GAC AAC TCA TCC CCC CCG GCC GTA Thr Met Arg Ser Pro Val Phe Thr Asp Asn Ser Ser Pro Pro Ala Val CCG CAG TCA TTT CAA GTG GCC CAC CTA CAC GCT CCC ACT GGC AGC GGC Pro Gln Ser Phe Gln Val Ala His Leu His Ala Pro Thr Gly Ser Gly AAG AGT ACT AAA GTG CCG GCT GCA TAT GCA GCC CAA GGG TAC AAG GTG Lys Ser Thr Lys Val Pro Ala Ala Tyr Ala Ala Gln Gly Tyr Lys Val CTC GTC CTC AAT CCG TCC GTT GCC GCT ACC TTA GGG TTT GGG GCG TAT Leu Val Leu Asn Pro Ser Val Ala Ala Thr Leu Gly Phe Gly Ala Tyr

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

7619 7620 7621 7621 7621 7622 7622 7623 7624 7624 7625 7626 7626 7626 7627 7628 7626 7627 7628 7628	•														IN	PUT	SET:	S30248.raw
Met   Ser Lys   Ala   His   Gly   Tie   Asp   Pro   Asn   Tie   Arg   Thr   Gly   Val   Arg			mam		~~.	~~~	~~~			~~~					<b>a</b> aa	am.		016
7622																_		816
7624 ACC ATT ACC ACA GGC GCC CCC GTC ACA TAC TCT ACC TAT GGC AAG TTT 7625 Thr 11e Thr Thr Gly Ala Pro Val Thr Tyr Ser Thr Tyr Gly Lys Phe 7626 275 7627 7628 CTT GCC GAT GGT GGT TGC TCT GGG GGC GCT TAT GAC ATA ATA TGT 7629 Leu Ala Asp Gly Gly Cys Ser Gly Gly Ala Tyr Asp Ile Ile Ile Cys 7630 290 300 7631 7632 GAT GAG TGC CAT TCA ACT GAC TCG ACT ACA ATC TTG GGC ACA GGC ACA 7633 Asp Glu Cys His Ser Thr Asp Ser Thr Thr Ile Leu Gly Tle Gly Thr 7634 305 310 310 315 315 320 7635 GTC CTG GAC CAA GCG GAG ACG GCT GAA GCG CTT GTC GTC GTC GCC 1008 7637 Val Leu Asp Gln Ala Glu Thr Ala Gly Ala Arg Leu Val Val Leu Ala 335 7639 ACC GCT ACG CCT CCG GGA TCG GTC ACC GTC CAC CAC CAA ACA ATC GAG 7631 Thr Ala Thr Pro Pro Gly Ser Val Thr Val Pro His Pro Asn Ile Glu 350 7640 ACC GCT ACG CCT CGG GGA TCG GTC ACC GTC CAC CAC CAA AAA GCC 1104 7641 Thr Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 7643 ASP GLU CAT GAA GCC ATC AGG GGG GGA ACG CCT TCT TAT GGC AAA GCC 1104 7642 Thr Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 355 7644 ATC CCC ATT GAA GCC ATC AGG GGG GGA ACG CCT TCT TAT GGC AAA GCC 1104 7643 TGC ACC ATT GAA GCC ATC AGG GGG GGA ACG CTC ACT TTT TTC TGT CAT 1152 7650 370 370 375 7651 TCC AAG AAA AAA TC GC GAC GAC CAC GCA AAA GCC 1104 7652 TCC AAA AAA AAA TA TGT GGA GAA GCC TCC GAA ACA TCC TCT TTT TTC TGT CAT 1152 7653 Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Lu Phe Cys His 365 7656 ATC AAC GCT GTC GTC TAT TAC CGG GGG CTC GAT GTC CTC GTC ATC ACC CTC GAA 1248 7654 TCC AAG AAA AAA AAA TCC GTT GTC GTC GCC GCA AAA GCC TGT GCC GTC GAA 1248 7655 ATC AAC GCT GTG GCC TTT TAC CGG GGG CTC GAT GTC CTC ATC TTC TTC TGT CAT 1152 7656 ATC AAC GCT GTG GCC TTT TAC CGG GGG CTC GAT GTC CTC ATC ATC ACC 1248 7657 TR Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Asp Val Ser Val Ile Pro 415 7658 ATC AAC GCT GTG GCC TTT TAC CGC GGA ACA ACA CA TCT GTC GTC ACC 1248 7659 ACT TCC GGA GAC TTT GAC TCT GTC GTC GCC ACC TTC ACC		мес	Ser	гаг		HIS	GTĀ	тте	Asp		Asn	тте	arg	THE		vaı	Arg	
ACC   ATT   ACC					200					205					270			
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Tell		СТТ	GCC	GAT	GGT	GGT	TGC	TCT	GGG	GGC	GCT	TAT	GAC	ATC	АТА	ATA	TGT	912
7631	· - <del>-</del> -																	
7632				•	-	-	4		-4	2		- 4 -	_				•	
Asp   Clu   Cys   His   Ser   Thr   Asp   Ser   Thr   Thr   Ser   Thr   Thr   Ser   Ser   Thr   Ser   Ser   Thr   Ser   Ser   Thr   Ser	7631																	
315   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320   320	7632	GAT	GAG	TGC	CAT	TCA	ACT	GAC	TCG	ACT	ACA	ATC	TTG	GGC	ATC	GGC	ACA	960
7635 7636 7637 7637 7638 7639 7640 ACC GCT ACG CCT CCG GGA TCG GTC GTC GCG GTC GTC GTC GTC GTC GTC	7633	Asp	Glu	Cys	His	Ser	Thr	Asp	Ser	Thr	Thr	Ile	Leu	Gly	Ile	Gly	Thr	
The color of the	7634	305					310					315					320	
The color of the	7635																	
7638 7639 7640 7641 7641 7642 7642 7643 7644 7644 7644 7644 7644 7644 7644																		1008
7639 7640 7641 7641 7641 7642 7643 7644 7644 7644 7644 7645 7644 7645 7645		Val	Leu	Asp	Gln	Ala	Glu	Thr	Ala	Gly	Ala	Arg	Leu	Val	Val	Leu	Ala	
ACC						325					330					335		
The first of the																		
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7644 7644 7645 7646 7646 7647 7648 7647 7648 7647 7648 7649 7649 7649 7649 7640 7640 7640 7640 7641 7640 7641 7642 7642 7643 7644 7644 7644 7645 7647 7648 7646 7647 7648 7647 7648 7648		Thr	АТа	Thr		Pro	СТĀ	Ser	vaı		va⊥	Pro	His	Pro		ITe	GLu	
7644         GAG         GTG         GTC         CTG         TCT         AAT         ACT         GGA         GAG         ATC         CCC         TTC         TAT         GGC         1104           7645         Glu         Val         Ala         Leu         Ser         Asn         TTC         GIU         Fro         Phe         TTC         GIV         Lys         Ala         Leu         AGC         AGC         AGC         AGC         GGG         GGG         GGA         AGC         CAT         TTC         AGT         CAT         TTC         AGT         GGC         AGC         AGC         AGC         AGC         GGG         GGG         GGA         AGC         CAT         TTC         ATT         TTC         TTC         AGT         CTC         AGT         AGT <td></td> <td></td> <td></td> <td></td> <td>340</td> <td></td> <td></td> <td></td> <td></td> <td>345</td> <td></td> <td></td> <td></td> <td></td> <td>350</td> <td></td> <td></td> <td></td>					340					345					350			
7645   Glu Val Ala Leu Ser Asn Thr Gly Glu Ile Pro Phe Tyr Gly Lys Ala 365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   365   3		axa	ama	aaa	аша	mam	a am	» AIM	CON	ara	х ш с	aaa	mma	mam	aaa		aaa	1104
7646																		1104
7647 7648 ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC ATT TTC TGT CAT 7649 Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His 7650 370 370 375 375 375 380 380  7651 7652 TCC AAG AAG AAG TGC GAC GAG CTC GCC GCA AAG CTG TCA GGC CTC GGA 1200  7653 Ser Lys Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly 7654 385 390 390 390 390 395 395 400  7655 7656 ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTC GTC GTC ATA CCA 1248  7657 1le Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro 7658 7659 7660 ACT TCC GGA GAC GTC GTT GTC GTC GTG ACC ACC 1248  7661 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 7662 7663 7666 TAT ACG GGC GAC TTT GAC TCA GTG ACC GTG ACC TTC ACC ACC 1344  7666 777 Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 1392  7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr		GIU	Val		mea	261	ASII	1111		GIU	TIG	PIU	rne	-	Gry	гуз	АТО	
Total   Tota				555					300					303				
The state		ATC	ccc	АТТ	GAA	GCC	ATC	AGG	GGG	GGA	AGG	САТ	СТС	АТТ	TTC	TGT	CAT	1152
7650       370       375       380         7651       7651       7652       TCC       AAG       AAG       TGC       GAC       GAG       CTC       GCC       GCA       AAG       CTG       TCA       GGC       CTC       GGA       1200         7653       Ser       Lys       Lys       Lys       Cys       Asp       Glu       Leu       Ala       Ala       Lys       Leu       Gly       Leu       Gly       Leu       Gly       Leu       Gly       Leu       Gly       Leu       Gly       Leu       Asp       Val       1le       Pro         7656       ATC       AAC       GCT       GTG       GCC       TAT       TAC       CGG       GGG       CTC       GAT       GTC       GTA       CCA       1248         7657       Tle       Asn       Ala       Tyr       Tyr       Tyr       Arg       Gly       Leu       Asp       Val       Ile       Pro       Asp       Val       Ile       Pro       Asp       Val       Ile       Asp       Pro       Aca       Aca       GCT       CTG       ATC       GCT       ATC       GCT       ACA       ACA       ACA																		
7652         TCC         AAG         AAG         AAG         TGC         GAC         GAC         GCC         GCC         GCA         AAG         CTC         GGC         CTC         GGA         1200           7653         Ser         Lys         Lys <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td></td>								_	-	-						-		
Tell	7651																	
7654       385       390       395       400         7655       ATC       AAC       GCT       GTG       GCG       TAT       TAC       CGG       GGG       CTC       GAT       GTC       GTC       ATA       CCA       1248         7657       Ile       Asn       Ala       Val       Ala       Tyr       Tyr       Arg       Gly       Leu       Asp       Val       Ser       Val       Ile       Pro         7658       ACT       TCC       GGA       GAC       GTC       GTT       GTC       GTG       GCA       ASP       Val       Ile       Pro       Pro       415       Pro       ATG       ACG       GGC       Ile       Pro       ATG       ACG       GGC       ACG       GGC       Ile       ACG       GGC       ACA       GCA       GCT       CTG       ATG       ACG       GGC       Ile       ACG       Ile       ACG       GGC       Ile       ACG       Ile       ACG       TGT       ACG       ACG       Ile       ACG       ACG	7652	TCC	AAG	AAG	AAG	TGC	GAC	GAG	CTC	GCC	GCA	AAG	CTG	TCA	GGC	CTC	GGA	1200
7655 7656 ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTG TCC GTC ATA CCA 1248 7657 Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro 7658 7659 7660 ACT TCC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC 1296 7661 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 7662	7653	Ser	Lys	Lys	Lys	Cys	Asp	Glu	Leu	Ala	Ala	Lys	Leu	Ser	Gly	Leu	Gly	
7656         ATC         AAC         GCT         GTG         GCG         TAT         TAC         CGG         GGG         CTC         GAT         GTC         GTC         ATA         CCA         1248           7657         Ile         Asn         Ala         Val         Ala         Tyr         Tyr         Tyr         Arg         Gly         Leu         Asp         Val         Ser         Val         Ile         Pro           7658         ACT         TCC         GGA         GTC         GTT         GTC         GCA         ACA         GCT         CTG         ATG         ACG         GGC         Ile         Pro         A15         ACG         GGC         GGC         Ile         ACA         GCT         CTG         ACA         ACG         GGC         Ile         ACG         GGC         Ile         ACG         Ile         ACG         GGC         ACG         Ile         ACG         ACG         ACG         Ile         ACG         ACG         ACG         Ile         ACG <td>7654</td> <td>385</td> <td></td> <td></td> <td></td> <td></td> <td>390</td> <td></td> <td></td> <td></td> <td></td> <td>395</td> <td></td> <td></td> <td></td> <td></td> <td>400</td> <td></td>	7654	385					390					395					400	
The   Ash   Ala   Val   Ala   Tyr   Tyr   Arg   Gly   Leu   Ash   Val   Ser   Val   Ile   Pro   415																		
7658 7659 7660 ACT TCC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC 1296 7661 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 7662 420 425 425 430 7663 7664 TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC 1344 7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435 435 440 445 7667 7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 1392 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr																		1248
7659 7660		Ile	Asn	Ala	Val		Tyr	Tyr	Arg	Gly		Asp	Val	Ser	Val		Pro	
7660 ACT TCC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC 1296 7661 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 7662 420 420 425 425 430 7663 7664 TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC 1344 7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435 435 440 440 445 7667 7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 1392 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr						405					410					415		
7661 Thr Ser Gly Asp Val Val Val Val Ala Thr Asp Ala Leu Met Thr Gly 7662 7663 7664 TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC 1344 7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435		. am	maa		a. a	ama	~~~		ama			~~~		~~~				1006
7662																		1296
7663 7664 TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC 1344 7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435 440 445 7667 7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 1392 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr		Thr	ser	GIA	_	val	val	vaı	vат		Thr	Asp	АТа	Leu		Thr	GLY	
7664 TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC 7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435					420					425					430			
7665 Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr 7666 435 440 440 445  7667  7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr		ጥለጥ	λCG	aac	GAC	ффф	GAC	<b>ሞ</b> ር እ	стс	እጥሮ	CAC	TOT	אאמ	אמא	TOT	CTC	ACC.	1344
7666 435 440 445  7667  7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG  7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr																		+717
7667 7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 1392 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr		- 1 -					p	~~.			-1.5P	~ y .	ASII		~ <sub>1</sub> .5	* 4.4		
7668 CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG 7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr																		
7669 Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr		CAG	ACA	GTC	GAC	TTC	AGC	TTG	GAT	CCC	ACC	TTC	ACC	ATT	GAG	ACG	ACG	1392
•	7669																	
7070 200 200	7670		450		_			455	-			•	460					
7671	7671																	

### RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

DATE: 12/09/98 TIME: 16:07:22

															A I I'A I I'A	CDM. CA	20.40			
7672	N.C.C	ama	CCT.	CAA	GAC	CCA	CTC	ሞሮር	cac	TOO	CAC	aaa	ccc		<i>NPUT</i> AGG	SET: S30		2W 440		
7673															' Arg		1.	440		
7674	465	,,,		<b>-</b>	p	470		501	9	Del	475	A.y	AL 9	OL,	nr 9	480				
7675	403		,			4/0					4/3					400				
7676	GGC	AGG	GGT	AGG	AGA	aac	ልሞሮ	ጥልሮ	ΔGG	արդու	стс	ልሮሞ	CCG	GGA	GAA	caa	1.	488		
7677															Glu			100		
7678	017	9	1	9	485	0_1	110	- 1 -	9	490	Val	1111	110	O.L.y	495	arg				
7679					100					170					473					
7680	CCC	TCG	GGC	ΔТС	ጥጥሮ	СΔТ	TCC	TCG	GTC	СТС	ጥርጥ	GAG	TGC	тΔт	GAC	aca	1	536		
7681															Asp			330		
7682		501	0-7	500		1100	501	501	505	Dea	Cys	OIU	Cys	510	_	AIG				
7683				300			,		303					310						
7684	ggc	тст	GCT	TGG	TAC	GAG	СТС	ACC	CCC	GCC	GAG	ACC	ጥሮር	СТТ	AGG	ጥጥር	1	584		
7685															Arg			304		
7686	017	0,5	515		-1-	014	·	520	110	A.u	GIG	1111	525	Val	ALG	пеа				
7687			910					320					323							
7688	CGG	GCC	TAC	СТС	AAC	ACA	CCA	GGG	ጥጥር	ccc	Gጥጥ	TGC	CAG	GAC	CAC	CTG	1	632		
7689															His		-	<b>,,,</b>		
7690	5	530	- , -				535	,				540	<b></b>			<b>200</b>				
7691							000					310								
7692	GAG	TTC	TGG	GAG	AGT	GTC	ттс	ACA	GGC	СТС	ACC	САТ	ΔΤΔ	GAT	GCA	CAC	1	680		
7693															Ala		_	•••		
7694	545					550			1		555					560				
7695																				
7696	TTC	TTG	TCC	CAG	ACC	AAG	CAG	GCA	GGA	GAC	AAC	TTC	CCC	TAC	CTG	GTA	1	728		
7697															Leu		_			
7698					565				1	570				- 1 -	575					
7699																				
7700	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC	CCA	CCT	CCA	TCA	1	776		
7701															Pro					
7702		-		580			•		585					590						
7703																				
7704	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	1	824		
7705			_												Leu					
7706		_	595		-	-	•	600		•		•	605							
7707																				
7708	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	CAA	AAT	GAG	GTC	1	872		
7709	_		_												Glu					
7710	-	610					615	_		-		620								
7711																				
7712	ACC	CTC	ACC	CAC	CCC	ATA	ACC	AAA	TAC	ATC	ATG	GCA	TGC	ATG	TCG	GCC	1	920		
7713															Ser					
7714	625					630		-	-		635		-			640				
7715																				
7716															GCT		1	968		
7717	Asp	Leu	Glu	Val	Val	Thr	*	Glu	Phe	Glu	Leu	Arg	Arg	Gln	Ala	Cys				
7718					645					650		_	_		655	_				
7719																				
7720				CGA									TCC				2	007		
7721	Gly	Arg	Thr	Arg	Ala	Pro	Pro	Pro	Pro	Pro	Leu	Arg	11							
7722				660					665			-	4	(2)	INFO	RMATION	FOR	SEQ	ID	NO:
7723																				
7704		, 1	\ CIT2	OTTENT	3B 63		amer:	ram z	<b>30.</b>											

7724 (i) SEQUENCE CHARACTERISTICS:

DATE: 12/09/98 TIME: 16:07:23

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															IN	<i>IPUT</i>	SET: S	830248.raw
	7725			( )	A) LI	engti	H: 20	007 k	oase	pai	rs							
	7726			(1	B) T:	YPE:	nuc	leic	acio	đ.								
	7727			((	C) S'	<b>TRANI</b>	DEDNI	ESS:	sing	gle								
	7728			(1	D) T(	OPOL	OGY:	line	ear									
	7729																	
	7730		(ii	) MOI	LECU	LE T	YPE:	cDN/	4									
	7731		•															
	7732																	
	7733			(ix)	FEA'	TURE:	:											
	7734						KEY:	CDS										
	7735			•	•		ON:		2007									
	7736			,	•													
	7737																	
>	7738		(xi	SEC	OUEN	CE DI	SCR	PTI	n: s	SEO I	ED NO	0:120	):					
-	7739		\	,	2			,		<u>.</u>			•					
	7740	ΔТС	САТ	ΔТС	САТ	САТ	CAT	CAC	САТ	САТ	CTG	GTG	CCG	CGC	GGC	AGC	GCG	.48
	7741						His											
	7742	1		1100		5	****				10	, , ,		n- 9	<b>-</b>	15	n_u	
	7743	•				•												
	7744	CCC	አጥሮ	λCG	acc	ሞአር	TCC	CAA	CAG	A C C	ccc	aac	CTLY	Cutur	COT	TGC	እጥሮ	96
	7745						Ser											70
	7746	FIG	TTE	1111	20	TAT	Ser	GIII	GIII		Arg	GLY				Cys	116	
	7747				20					25				124 13	30			
	7748	» ma	» am	200	amm.	202	GGC	000	axa	220	220	ara			aax	axa	Omm.	1 4 4
														-				144
	7749	TTE	THE		ьeu	THE	Gly	Arg			ASII	GIN	vaı		GTA	GIU	vaı	
	7750	-		35					40	185				45				
	7751	a.a	ama	amm	maa				<i>a</i>			ama			maa	ama		100
	7752						GCA											192
	7753	GIN		vaı	ser	Thr	Ala		GIN	Ser	Pne	Leu		Thr	cys	vaı	ASN	
	7754		50					55					60					*
	7755																	
	7756						GTT											240
	7757	_	Val	Cys	Trp	Thr	Val	Tyr	His	GТĀ	Ala	_	Ser	Lys	Thr	Leu		
	7758	65					70					75					80	
	7759																	
	7760						ATC											288
	7761	GTA	Pro	Lys	GTÄ		Ile	Thr	Gln	Met	_	Thr	Asn	Val	Asp		Asp	
	7762					85					90					95		
	7763																	
	7764						GCG											336
	7765	Leu	Val	Gly	Trp	Gln	Ala	Pro	Pro	Gly	Ala	Arg	Ser	Leu	Thr	Pro	Cys	
	7766				100					105					110			
	7767																	
	7768						GAC											384
	7769	Thr	Cys	Gly	Ser	Ser	Asp	Leu	Tyr	Leu	Val	Thr	Arg	His	Ala	Asp	Val	
	7770			115					120					125				
	7771																	
	7772	ATT	CCG	GTG	CGC	CGG	CGG	GGC	GAC	AGT	AGG	GGG	AGC	CTG	CTC	TCC	CCC	432
	7773						Arg											
	7774		130		_		_	135	-		_	-	140					
	7775																	
	7776	AGG	CCT	GTC	TCC	TAC	TTG	AAG	GGC	TCT	TCG	GGT	GGT	CCA	CTG	CTC	TGC	480
	7777						Leu											
		3						-1-	1			1	1					

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7781	Pro	Ser	Gly	His	Ala	Val	Gly	Ile	Phe	Arg	Ala	Ala	Val	Cys	Thr	Arq	
7782			•		165		•			170				•	175		
7783																	
7784	GGG	GTT	GCG	AAG	GCG	GTG	GAC	TTT	GTG	CCC	GTA	GAG	TCC	ATG	GAA	ACT	576
7785	Gly	Val	Ala	Lys	Ala	Val	Asp	Phe	Val	Pro	Val	Glu	Ser	Met	Glu	Thr	
7786				180			_		185					190			
7787																	
7788	ACT	ATG	CGG	TCT	CCG	GTC	TTC	ACG	GAC	AAC	TCA	TCC	CCC	CCG	GCC	GTA	624
7789	Thr	Met	Arg	Ser	Pro	Val	Phe	Thr	Asp	Asn	Ser	Ser	Pro	Pro	Ala	Val	
7790			195					200					205				
7791																	
7792					CAA												672
7793	Pro		Ser	Phe	Gln	Val		His	Leu	His	Ala		Thr	Gly	Ser	Gly	
7794		210					215					220					
7795																	
7796					GTG												720
7797		ser	Thr	гÀг	Val		АТа	АТа	Tyr	Ата		GIN	GTÀ	Tyr	гàг		
7798	225					230					235					240	
7799	ama.	ama	ama	3 3 777	000	maa	amm	aaa	aam	100	mm s	~~~	mmm	222	222	mam	760
7800 7801					CCG												768
7801 7802	rea	val	rea	ASII	Pro 245	Ser	Val	ATa	Ата		Leu	GLY	Pne	GTÄ		Tyr	
7802					243					250					255		
7804	አጥር	ጥረጣ	λλC	CCA	CAC	COT	<b>አ</b> ጥጥ	CAC	ccc	224	አመረባ	N/C N	х ст	aga	CTA	NCC	816
7805					His												810
7806	rie c	Der	цуз	260	III	OLY	116	АЗР	265	ASII	116	Arg	1111	270	Val	Arg	
7807				200					203					2,0			
7808	ACC	АТТ	ACC	ACA	GGC	GCC	ccc	GTC	ACA	TAC	тст	ACC	тат	GGC	AAG	ጥጥጥ	864
7809					Gly												
7810			275		2			280		- 2 -			285	2	-4-		
7811																	
7812	CTT	GCC	GAT	GGT	GGT	TGC	TCT	GGG	GGC	GCT	TAT	GAC	ATC	ATA	ATA	TGT	912
7813	Leu	Ala	Asp	Gly	Gly	Cys	Ser	Gly	Gly	Ala	Tyr	Asp	Ile	Ile	Ile	Cys	
7814		290					295				-	300					
7815																	
7816					TCA												960
7817	qzA	Glu	Cys	His	Ser	Thr	Asp	Ser	Thr	Thr	Ile	Leu	Gly	Ile	Gly	Thr	
7818	305					310					315					320	
7819																	
7820					GCG												1008
7821	Val	Leu	Asp	Gln	Ala	Glu	Thr	Ala	Gly		Arg	Leu	Val	Val		Ala	
7822					325					330					335		
7823		~~~									<b></b> -		<b></b> -				- 4
7824					CCG												1056
7825	Tnr	Α⊥а	Thr		Pro	GTÀ	ser	val		val	Pro	His	Pro		тте	GIU	
7826				340					345					350			
7827 7828	CAC	аша	aaa	OTHER	m cree	3 3 777	a com	003	a 2 a	a ma	000	mme	mam	000		000	1104
7828 7829					TCT												1104
7829 7830	GIU	νаエ	355	rea	Ser	ASI	III	360	GIU	тте	Pro	rne	365	GTÀ	гаг	нта	
1030			333					300					202				

DATE: 12/09/98 TIME: 16:07:24

#### INPUT SET: S30248,raw ATC CCC ATT GAA GCC ATC AGG GGG GGA AGG CAT CTC ATT TTC TGT CAT Ile Pro Ile Glu Ala Ile Arg Gly Gly Arg His Leu Ile Phe Cys His TCC AAG AAG AGG TGC GAC GAG CTC GCC GCA AAG CTG TCA GGC CTC GGA Ser Lys Lys Cys Asp Glu Leu Ala Ala Lys Leu Ser Gly Leu Gly ATC AAC GCT GTG GCG TAT TAC CGG GGG CTC GAT GTG TCC GTC ATA CCA Ile Asn Ala Val Ala Tyr Tyr Arg Gly Leu Asp Val Ser Val Ile Pro ACT ATC GGA GAC GTC GTT GTC GTG GCA ACA GAC GCT CTG ATG ACG GGC Thr Ile Gly Asp Val Val Val Ala Thr Asp Ala Leu Met Thr Gly TAT ACG GGC GAC TTT GAC TCA GTG ATC GAC TGT AAC ACA TGT GTC ACC Tyr Thr Gly Asp Phe Asp Ser Val Ile Asp Cys Asn Thr Cys Val Thr CAG ACA GTC GAC TTC AGC TTG GAT CCC ACC TTC ACC ATT GAG ACG ACG Gln Thr Val Asp Phe Ser Leu Asp Pro Thr Phe Thr Ile Glu Thr Thr ACC GTG CCT CAA GAC GCA GTG TCG CGC TCG CAG CGG CGG GGT AGG ACT Thr Val Pro Gln Asp Ala Val Ser Arg Ser Gln Arg Arg Gly Arg Thr GGC AGG GGT AGG AGA GGC ATC TAC AGG TTT GTG ACT CCG GGA GAA CGG Gly Arg Gly Arg Gly Ile Tyr Arg Phe Val Thr Pro Gly Glu Arg CCC TCG GGC ATG TTC GAT TCC TCG GTC CTG TGT GAG TGC TAT GAC GCG Pro Ser Gly Met Phe Asp Ser Ser Val Leu Cys Glu Cys Tyr Asp Ala GGC TGT GCT TGG TAC GAG CTC ACC CCC GCC GAG ACC TCG GTT AGG TTG Gly Cys Ala Trp Tyr Glu Leu Thr Pro Ala Glu Thr Ser Val Arg Leu CGG GCC TAC CTG AAC ACA CCA GGG TTG CCC GTT TGC CAG GAC CAC CTG Arg Ala Tyr Leu Asn Thr Pro Gly Leu Pro Val Cys Gln Asp His Leu GAG TTC TGG GAG AGT GTC TTC ACA GGC CTC ACC CAT ATA GAT GCA CAC Glu Phe Trp Glu Ser Val Phe Thr Gly Leu Thr His Ile Asp Ala His TTC TTG TCC CAG ACC AAG CAG GCA GGA GAC AAC TTC CCC TAC CTG GTA Phe Leu Ser Gln Thr Lys Gln Ala Gly Asp Asn Phe Pro Tyr Leu Val

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/198,723

														ΙΛ	PUT	SET: S3024	8.raw			
7884	GCA	TAC	CAA	GCC	ACG	GTG	TGC	GCC	AGG	GCT	CAG	GCC	CCA	CCT	CCA	TCA	177	6		
7885	Ala	Tvr	Gln	Ala	Thr	Val	Cys	Ala	Arg	Ala	Gln	Ala	Pro	Pro	Pro	Ser				
7886		- 4 -		580			•		585					590						
7887	•																			
7888	TGG	GAT	CAA	ATG	TGG	AAG	TGT	CTC	ATA	CGG	CTG	AAA	CCT	ACG	CTG	CAC	182	4		
7889	Trp	Asp	Gln	Met	Trp	Lys	Cys	Leu	Ile	Arg	Leu	Lys	Pro	Thr	Leu	His				
7890	_	_	595					600					605							
7891																				
7892	GGG	CCA	ACA	CCC	TTG	CTG	TAC	AGG	CTG	GGA	GCC	GTC	CAA	AAT	GAG	GTC	187	2		
7893	Gly	Pro	Thr	Pro	Leu	Leu	Tyr	Arg	Leu	Gly	Ala		Gln	Asn	Glu	Val				
7894		610					615					620								
7895																				
7896	ACC	CTC	ACC	CAC	CCC	ATA	ACC	AAA	TAC	ATC	ATG	GCA	TGC	ATG	TCG	GCC	192	:0		
7897	Thr	Leu	Thr	His	Pro	Ile	Thr	Lys	Tyr	Ile		Ala	Cys	Met	ser	Ala				
7898	625					630					635					640				
7899														~	com	maa	196	. 0		
7900	GAC	CTG	GAG	GTC	GTT	ACG	TAG	GAA	TTC	GAG	CTC	CGT	CGA	CAA	GCT	TGC	190	0		
7901	Asp	Leu	Glu	Val		Thr	*	GLu	Phe		Leu	Arg	arg	GIN	ATG	Cys				
7902					645					650					655					
7903									<b>aa</b> .	<b>a</b> a.	ama	101	шаа				200	17		
7904	GGC	CGC	ACT	CGA	GCA	CCA	CCA	CCA	CCA	CCA	CTG	AGA	TCC	<i>「</i> /			200	, ,		
7905	Gly	Arg	Thr		Ala	Pro	Pro	PIO			ьeu	arg	Sen	12	TNE	ORMATION	FOR	SEO	τn	NO:1
7906				660					665				-	(2)	TME	OKMATION	LOR	226	-0	

9/198,723

(xi) SEQUENCE DESCRIPTION: SEQ ID NO:123:

GCTCGCCCGG GGATCCTCTA G

21

delete et and) file



# Examiner Please Note:

This sequence listing follows the Old Rule Format but has a filing date on/after July 1, 1998.

Please determine the effective filing date of the case.

- If it is before July 1, 1998 Applicants were correct in following the Old Rule Format -
- →→ Nothing further needs to be done.
- If it is after July 1, 1998 Applicants should follow the New Rule Format-
- →→ Please request them to submit a new Sequence Listing (both in electronic and paper format) following the New Rule Format.